The role of a peer mentoring program in the adjustment of first-year university students

by

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DECLARATION

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ABSTRACT

The dual challenge of access and success has put support initiatives high on the agenda of higher education institutions (HEIs) globally, as they are attempting to address poor success rates of students. In South Africa (SA), the need for effective support initiatives is escalated by the current developmental and transformation role that higher education (HE) is required to play in a post-apartheid SA. Peer mentoring programs have become a central part of the support offered to first-year students, as a means of improving retention and adjustment of first-year students. Evaluative studies on the outcomes of peer mentoring programs are, however, still limited. Stellenbosch University (SU) has introduced an innovative peer mentoring program called the Be Well Peer Mentoring Program. While the program has been operational for five years, no systematic scientific research has been done on the program outcomes. Tinto (2012) underscores the importance of gaining feedback on the effectiveness of programs in facilitating student success. It is for that reason that this study on the outcomes of the Be Well Peer Mentoring Program at SU was done.

The study specifically focussed on one of the intended outcomes of the program, namely the adjustment of participating first-year students. The following research question guided the study: *What difference, if any, has the peer mentoring program at Stellenbosch University made in terms of the adjustment of first time entering first-year students?* An explanatory sequential mixed-method design was used. During the first phase, quantitative data was collected in a quasi-experiment. The Student Adaptation to College Questionnaire (SACQ) was used as measurement instrument. Focus group discussions were conducted during the second phase of the data collection process.

Results of the quasi-experiment did not show a statistically significant difference in the adjustment of the experimental and control groups during the post-test. The study did, however, observe that the adjustment of the experimental group increased in the post-test, while the adjustment of the control group declined. The focus group discussions yielded valuable insights on the lack of statistical significance found in the quasi-experiment. The focus group discussions underlined the importance of the intensity of peer mentoring received as this had an influence on program outcomes. The following factors contributed to the intensity of peer mentoring: how individual mentors implemented the program with first-year students, mentor attributes, the nature of the relationship formed with mentees, the nature of interaction with mentees, time invested in mentoring, and reasons for mentoring. When peer mentoring was intense, first-year students reported more benefits, while less intense peer mentoring was less beneficial to participating students. In light of the significant role that the mentors played in the outcomes of the program, the study proposes a model for peer mentoring,

that is based on the findings, to assist SU with future implementation of the program. This proposed model identifies, amongst other things, the attributes of a good mentor that is likely to offer intense peer mentoring to first-year mentees.

The study contributed to the body of knowledge on peer mentoring programs both at a practical and a theoretical level. For SU, the study offered recommendations to improve future implementation of the program. The proposed model for peer mentoring specifically offers guidelines for future selection practices. This proposed model for peer mentoring also suggests guidelines on selection criteria for peer mentors. The study also offers some guidance to other HEIs on the process of peer mentoring itself. The findings of the study further underscore the importance of monitoring the implementation of peer mentoring programs. At a theoretical level, the study addresses the gap in the literature on scientific inquiry into peer mentoring programs.

OPSOMMING

Die dubbele uitdaging van toegang en sukses het, in ‘n poging om swak sukseskoerse van studente aan te spreek, ondersteuningsinisiatiewe wêreldwyd op die agenda van hoër onderwysinstellings (HOIs) geplaas. In Suid-Afrika (SA) word die behoefte aan effektiewe ondersteuningsintiatiewe tans ge-eskaleer deur die ontwikkelings- en transformasierol wat hoër onderwys in 'n post-apartheid SA moet speel. Portuur-mentorskapprogramme het, as 'n middel om die behoud en aanpassing van eerstejaarstudente te verbeter, 'n sentrale deel van die ondersteuning vir eerstejaarstudente geword. Evalueringstudies oor die uitkomste van portuur-mentorskapprogramme is egter steeds beperk. Die Universiteit Stellenbosch (US) bied 'n innoverende portuur-mentorskapprogram aan, genaamd die Be Well Portuur-mentorprogram. Hoewel die program reeds vyf jaar operasioneel is, is daar nie sistematiese wetenskaplike navorsing oor die programuitkomste gedoen nie. Tinto (2012) beklemtoon die belangrikheid van terugvoer oor die effektiwiteit van programme om studentesukses te fasiliteer. Dit is om hierdie rede dat dié studie oor die uitkomste van die Be Well Portuur-mentorprogram by die US gedoen is.

Hierdie studie het spesifiek gefokus op een van die beoogde uitkomste van die program, naamlik die aanpassing van deelnemende eerstejaarstudente. Die volgende navorsingsvraag het die studie gelei: *Watter verskil, indien enige, het die portuur-mentorskapprogram van die Universiteit Stellenbosch gemaak ten opsigte van die aanpassing van nuwelingeerstejaarstudente?* 'n Verklarende opeenvolgende gemengde-metode ontwerp is gebruik. Gedurende die eerste fase is kwantitatiewe data versamel deur ’n kwasi-eksperimentele ontwerp, met gebruik van die Studente Aanpassing-tot-Kollege Vraelys. Fokusgroepbesprekings is gedurende die tweede fase van die data-insamelingsproses gehou.

Resultate van die kwasi-eksperiment het nie 'n statisties beduidende verskil in die aanpassing van die eksperimentele en kontrolegroepe gedurende die na-toets getoon nie. Die studie het egter getoon dat die aanpassing van die eksperimentele groep in die na-toets verbeter het, terwyl die aanpassing van die kontrolegroep afgeneem het. Die fokusgroepbesprekings het waardevolle insigte gelewer ten opsigte van die gebrek aan statistiese beduidendheid wat in die kwasi-eksperiment gevind is. Die fokusgroepbesprekings het die belangrikheid van die intensiteit van die portuur-mentorskap onderstreep, aangesien dit die uitkomste beïnvloed het. Faktore wat die intensiteit van die portuur-mentorskap beïnvloed het is ook geidentifiseer, naamlik: hoe individuele mentors die program met eerstejaarstudente implementeer, mentoreienskappe, die aard van die verhouding met mentees, die aard van die interaksie met mentees, die tyd wat in mentorskap belê word asook die beweegredes vir aanvaarding van die mentorskaprol.

Wanneer portuur-mentorskap intens was, het eerstejaarstudente meer voordele gerapporteer, terwyl minder intense portuur-mentorskap minder voordelig was vir deelnemende studente. In die lig van die betekenisvolle rol wat die mentors in die uitkomste van die program gespeel het, stel die studie 'n model vir portuur-mentorskap, wat gebaseer is op die bevindinge, voor om die US te help met die verbetering van die toekomstige implementering van die program. Hierdie voorgestelde model identifiseer, onder andere, die eienskappe van 'n goeie mentor wat waarskynlik intensiewe portuur-mentorskap aan eerstejaarstudente sal bied.

Die studie het bygedra tot die bron van inligting oor portuur-mentorprogramme, sowel op praktiese as teoretiese vlak. Die studie bied aanbevelings vir US t.o.v. die toekomstige implementering van die program. Die voorgestelde model vir portuur-mentorskap bied ook riglyne spesifiek vir toekomstige keuringspraktyke, asook keuringskriteria vir portuur-mentors. Die studie bied ook riglyne met betrekking tot portuur-mentorskap vir ander HOIs. Die bevindinge van die studie beklemtoon verder die belangrikheid van implementering en monitering van portuur-mentorskapprogramme wêreldwyd. Op 'n teoretiese vlak het die studie die gaping in die literatuur wat wetenskaplike ondersoek oor portuur-mentorskapprogramme betref, aangespreek.

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I am delighted that this chapter of my life journey has come to an end and I am excited about what lies ahead. Upon completion of this study, I am more energized than ever to apply my knowledge and skills in service of all South African students in need of support.

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ACRONYMS

CHE	Council on Higher Education
CSC	Centre for Student Communities
CSCD	Centre for Student Counselling and Development
DHET	Department of Higher Education and Training
DoE	Department of Education
FGS	First-generation Students
FYE	First-year Experience
HAIs	Historically Advantaged Institutions
HDIs	Historically Disadvantaged Institutions
HE	Higher Education
HEI	Higher Education Institution
HEIs	Higher Education Institutions
NSC	National Senior Certificate
NSFAS	National Student Financial Aid Scheme
OBE	Outcomes Based Education
RSA	Republic of South Africa
SA	South Africa
SC	Senior Certificate
SU	Stellenbosch University
QUAL	Qualitative data
QUAN	Quantitative data

DEFINITIONS

Adjustment	A multi-dimensional process of interaction between an individual and his/her environment, whereby the individual develops effective coping mechanisms to adapt to the new envioronment and its demands
Assessment	Academic assessment such as assignments or tests
Expectations	Perceptions of what a student is capable of academically
Holistic wellness	Wellness across six interrelated wellness domains, that is physical, emotional, intellectual, social, occupational and spiritual wellness
Involvement	Time spent on academic and social activities that are educationally purposeful
Mentee	First-year student that is being mentored by a senior student, as part of a peer mentoring program
Mentor	Senior student who has taken on the role of providing support, guidance and information to first-year students who participate in a peer mentoring program
Peer mentoring	A situation in which a senior student maintains a relationship with a first-year student and provides information, support and guidance to the first-year student
Socially underprepared	Underprepared to cope with the interpersonal-societal demands of the higher education environment
Underserved groups	In South Africa the African and Coloured population groups were historically less well provided for compared to Whites and Indians

CHAPTER 1

INTRODUCTION

1.1. BACKGROUND AND CONTEXT

Higher education (HE) has been marked by significant expansion and change in the last decades, as higher education institutions (HEIs) have adjusted to new societal and economic demands (Teichler, 2001). Globally, the HE sector has seen broadened access, reaching massification levels (Trow, 2000), and consequently HEIs has had to change from elite institutions to democratic ones. While the massification of HE is important within the current role HEIs are playing, it also presents multiple challenges for HEIs (Cross & Carpenter, 2009; Shin & Harman, 2009; Teichler, 2001). HEIs are to provide opportunities for students of all backgrounds to gain high-level skills and to find better employment, and in doing so contribute to the socio-economic development of society (Ramdass, 2009; Castells, 2009).The dual challenge of access and success of students has been a primary challenge confronting HEIs. Due to broadened access, increased numbers of first-generation students (FGS)[1] are gaining access to HE. However, because of various factors, they are entering less prepared for HE (Fox, Stevenson, Connelly, Duff & Dunlop, 2010; Harvey, Drew & Smith, 2006) and consequently their success rates remain a challenge. In recent decades, the low success rates of underprepared FGS has put support to underprepared students high on the HE agenda (Cross & Carpenter; 2009; Teichler, 2001; Trow, 2000), as HEIs are required to offer support initiatives that would increase their chances of success.

Given the significance of the first year at a higher education institution (HEI), support during the first year has become a primary focus. The first year is arguably the most challenging transitional phase of the HE experience (Van Schalkwyk, Van der Merwe & Leibowitz, 2009; Barefoot, 2000), as students are confronted with multiple adjustments. Failure to successfully adjust to the new environment and its demands can impact on student success during the first year (Van Schalkwyk et al., 2009; Scott, 2009). Increased enrolments of FGS has brought additional complexities to adjustment during the first year, and even more so for FGS from low income backgrounds. Academic success during the first year also has a cumulative effect on future success (Cross, 1980; Harvey et al., 2006; Jones, 2005). First-year attrition remains a global challenge (Barefoot, 2000; Clarke, 2005; Green, Cashmore, Scott & Narayanan, 2009; Harvey et al., 2006; Scott, 2009; Tinto, 2012; Van Schalkwyk et al., 2009; Yorke & Longden, 2004), as attrition remains the highest during the first year

[1] First-generation students are defined as students whose parents' highest level of education is a high school diploma or less (Crissman Ishler, 2005), in other words, neither of their parents hold a post-school qualification.

(Green et al., 2009; Scott, 2009; Tinto, 2012; Yorke & Longden, 2004; Upcraft, Gardner & Barefoot, 2005). Supportive interventions during the first year have therefore become increasingly important for HEIs (Collings, Swanson & Watkins, 2014; Kuh, Kinzie, Schuh & Whitt, 2010), who need to support students in their adjustment and consequently decrease attrition rates.

Peer mentoring programs have become an integral part of the support offered to first-year students. HEIs commonly implement peer mentoring programs as a means of improving retention (Collings et al., 2014; Shotton, Oosahwe & Cintrón, 2007; Tremblay & Rodger, 2003; Ward, Thomas & Disch, 2012) and positively contributing to the adjustment of first-year students (Thile & Matt, 1995). Tinto (2012) however, underscores the importance of gaining reliable data on whether programs succeed in achieving their goals, if HEIs wish to successfully promote student success. And while there is no shortage of anecdotal reports on the benefits of peer mentoring programs, there is limited research available on the outcomes of these programs (Grant-Vallone & Ensher, 2000; Knowles & Parsons, 2006) - indicating a gap in the current available knowledge.

It is against this back-drop that this study investigated the outcomes of a peer mentoring program offered at Stellenbosch University (SU) in South Africa (SA). The program is administered by the Centre for Student Communities (CSC), one of the three centres under the Division of Student Affairs at the University. I am employed by the University and currently hold two positions at the institution, making me an insider researcher. In my primary appointment I work at the Centre for Student Counselling and Development (CSCD) and in my secondary position as residential head in one of the female residences. The latter role is positioned under the CSC, who administers the peer mentoring program, and consequently I have had exposure to the program in my role as residential head. The study focussed on one intended outcome and specifically investigated what difference, if any, the peer mentoring intervention has made in terms of the adjustment of participating first-year students. This chapter provides an overview of the study. It firstly outlines the current global and South African HE context. Then it discusses the first-year student, with emphasis on the adjustment during the first year. Peer mentoring programs as a supportive intervention to first-year students are subsequently discussed, followed by the context of this particular study, the statement of the problem, the aim of the study and the theoretical framework underpinning this study. Finally, the research methodology is outlined and the chapter concludes with the positioning of the study and the structure of this dissertation.

1.2. STUDENT ACCESS AND SUCCESS

Since the 1960s, HE worldwide has been marked by a rapid process of expansion (Teichler, 2001; 1998; Trow, 2000; UNESCO, 1998) which has been viewed as instrumental in reducing inequity of opportunity and advancing economic growth (Schuetze & Slowey, 2002; Shin & Harman, 2009;

Teichler, 2001). Traditionally HEIs were elite institutions, only admitting a limited number of students primarily from privileged socio-economic backgrounds (Ramdass, 2009; Shin & Harman, 2009; Trow, 2000). In most countries, a university degree has been a requirement for a middle class occupation, and consequently only the limited number of students who had access to HE had been able to enter such occupations (Altbach, 1999). A growing middle class sector, as well as an increased demand for skills imparted through HE, have however resulted in the huge expansion of HE globally in recent decades (Altbach, 1999). By the 21st century this expansion has resulted in the massification of HE globally, as HEIs moved from being elite to democratic institutions (Ramdass, 2009; Shin & Harman, 2009; Trow, 2000). Massification has given increasing numbers of FGS students access to HE (Cross & Carpenter, 2009; Mohamedbhai, 2008; Schuetze & Slowey, 2002; Shin & Harman, 2009), expanding participation for students from lower socio-economic groups (Shin & Harman, 2009; Schuetze & Slowey, 2002).

The mission of HE and the role of HEIs have also changed (Schuetze & Slowey, 2002). A primary role of contemporary HE is to equip students with skills and knowledge which they could employ to the betterment of society (Mouton, Louw & Strydom, 2013; Ramdass, 2009), both socio-culturally and economically (UNESCO, 1998). HEIs can no longer focus on imparting knowledge only, as knowledge in today's world is readily available (Altbach, 1999; Castells, 2009; Ernst and Young, 2012). HEIs need to equip students with the skills and values that will enable them to continuously broaden and add to their skills throughout their lifecycle, in order to better apply their skills in a constantly changing economic, technological and social-cultural environment (Castells, 2009). Increased opportunities for learning, partly made accessible through technology, make it possible for students of different ages, different educational backgrounds and different socio-economic backgrounds to acquire new skills. In so doing, HEIs provide opportunities for students of all backgrounds to gain high-level skills, find better employment and improve their standard of living and consequently that of future generations (Castells, 2009; Ernst & Young, 2012; Ramdass, 2009). This is particularly significant for FGS from low income backgrounds for whom a higher education qualification holds the prospect of upward socio-economic mobility and an increase in the standard of living for themselves and their families.

While massification of HE potentially has social and economic benefits, it has also brought about a number of challenges for HEIs (CHE, 2013; Cross & Carpenter, 2009; Ernst & Young, 2012; Mouton et al., 2013; Shin & Harman, 2009; Teichler, 2001). The success rate of students is one of the biggest challenges currently being experienced by HEIs, as more students, particularly FGS, gaining access are entering HE underprepared (Cross & Carpenter; 2009; Teichler, 2001, 1998; Trow, 2000). FGS

differ from their second+-generation peers[2], both in terms of entering characteristics and higher education experiences (Aspelmeier, Love, McGill, Elliot & Pierce, 2012; Bui, 2002). This makes the transition from school to the higher education environment different and more complex for FGS (Pascarella, Wolniak, Pierson & Terenzini, 2003; Terenzini, Springer, Yager, Pascarella & Nora, 1996). It is true that most students experience some adjustment difficulties during their first year, but the adjustment challenges of FGS are heightened by social factors such as their educational backgrounds, family backgrounds, financial circumstances and even language barriers (Jehangir, 2010). This has resulted in an increased need for HEIs to support a more diverse student population during their first year.

Supporting students to overcome the challenges of underpreparedness within a context of financial stringency (due to the global economic climate) has become one of the major issues that institutions of higher education worldwide are faced with (Shin & Harman, 2009; Teichler, 2001, 1998). While enrolments are increasing, public funding for HE has decreased. Public funding is therefore not in line with the increased enrolments, leaving HEIs with the challenge of supporting students within a context of limited finances (Teichler, 2001, 2010). Support to FGS in particular is critical (Davis, 2010; Harvey et al., 2006), as these students face unique challenges during their HE journey (Ishitani, 2003). The implementation of helpful, cost-effective support programs has consequently become increasingly important.

While global challenges are certainly not leaving post-apartheid South African HE unaffected, the sector in SA is experiencing additional challenges pertaining to the transformation of HE post-apartheid. The oppressive colonial and apartheid systems have left a legacy of inequality that is of the highest in the world. Inequality along racial lines still adversely affects previously underserved African and Coloured groups, and HE in SA has an important transformation and developmental role to play in redressing the inequalities of the past (Ramdass, 2009; DoE, 1997). Providing access to previously underserved groups, accompanied with success, has become critical to this role (DoE, 1997; Mouton et al., 2013; Wangenge-Ouma, 2012). The Education White Paper 3 (DoE, 1997) stipulates that HEIs need to contribute to and support societal transformation in South Africa. Central to this is equality of representation amongst graduates in terms of race and social class (CHE, 2013). Improving the participation and success rates of previously underserved Coloured and African students is pivotal to achieving these goals and has therefore become a primary focus of HE in SA (CHE, 2013). While progress has been made in term of broadened access of these underserved groups, equity of access has not been accompanied with equity of outcomes.

[2] Second+-generation students are students who have at least one parent with a post-school qualification.

Most African and Coloured students gaining access are FGS, who present less prepared for HE than their second+-generation peers. These students are not only underprepared academically, they are also less prepared in terms of adjusting to the university environment or institutional culture (Cross & Carpenter, 2009). HEIs are consequently confronted with the challenges brought about by the increased enrolment of underprepared students. According to the Council on Higher Education (CHE, 2013:44), "much of the poor performance in higher education can be attributed to the articulation gap between school and higher education." Challenges within the South African basic education system are therefore a primary factor contributing to the level of underpreparedness of students entering HEIs (Cross & Carpenter, 2009; Mavunga, 2014; Nel, Kistner & Van der Merwe, 2013). The South African heritage of apartheid resulted in inequalities within the basic education system, with rural areas historically being underserved (Mavunga, 2014; Nel, Kistner & Van der Merwe, 2013). Today, twenty-four years after democracy, these inequalities still exist (Mavunga, 2014). Challenges such as failure of government to supply adequate textbooks, poor learning infrastructure and resources, teacher shortages (Mavunga, 2014) and the prevalence of underqualified teachers still prevail, especially in rural communities (Nel, Kistner & Van der Merwe, 2013). Consequently, learners from these underserved schooling backgrounds are generally less prepared for HE than their counterparts from advantaged schooling backgrounds (Nel, Kistner & Van der Merwe, 2013; McGhie, 2012).

Expanding access to previously underserved groups has been accelerated by the increased numbers of students gaining access to university, based on their National Senior Certificate (NCS) results (Mouton et al., 2013; Nel & Kistner, 2009). In 2008, a structural change occurred in the final examination of the basic school system of South Africa. Matriculants were awarded the NSC instead of the previously awarded Senior Certificate (SC). These matriculants were also taught in the new outcomes based education (OBE) system rather than the previous skills- or content-based learning system (Schöer, Ntuli, Rankin & Sebastiao, 2010). This structural change raised questions regarding the preparedness of students gaining entrance to HE (Cross & Carpenter, 2009; Govender & Moodley, 2012; Nel & Kistner, 2009; Schöer et al., 2010). Studies compairing the performance of students who were awarded the new NSC, suggest that these students fall short in 'gateway' subjects such as Mathematics and Physics when compared to their counterparts who had been awarded the previous SC (Govender & Moodley, 2012; Nel & Kistner, 2009; Potgieter & Davidowitz, 2010; Schöer et al., 2010; Wolmarans, Smit, Collier-Reed & Leather, 2010). The possibility of grade inflation within the new system has also been suggested (Govender & Moodley, 2012; Jansen, 2011). Consequently, many universities are making use of additional assessment instruments as an adjunct to the NSC, such

as the National Benchmark Tests (NBTs), to more accurately assess entering students' level of preparedness for HE (Jansen, 2012).

Currently the South African higher education system is characterised as a low participation, high attrition one. Equity of access has not been accompanied by equity of outcomes amongst African and Coloured students (CHE, 2013), as lower success rates amongst African and Coloured students leave graduation rates still skewed along racial lines, and this remains a concern (CHE, 2013). Previously underserved African and Coloured students often present with challenges such as high rates of repetition, low graduation rates, declining retention, increased drop-out, etc. (Cross & Carpenter, 2009; Jansen, 2011; Wangenge-Ouma, 2012). This holds significant implications for the agenda of equity and development in HE, the social and economic development of the country (CHE, 2013; Jansen, 2011) and for the students and families affected (Jansen, 2004). "Universities lose funding resources, parents lose out on hard-earned savings invested in their children; students lose confidence in their ability to gain a university education; and the country fails to gain another skilled graduate from university" (Jansen, 2011:131). While the Council on Higher Education (2013) acknowledges the influence that the school system and socio-economic factors have on the throughput rate, it argues that it is still primarily the responsibility of HE to produce successful graduates. With high attrition rates in the first year, many HEIs are focusing on the first year experience (FYE), offering a range of support to assist with adjustment and success during the first year.

1.2.1. Focus on first-year students

First-year attrition remains a global challenge (Clarke, 2005; Green et al., 2009; Harvey et al., 2006; Scott, 2009; Van Schalkwyk et al., 2009). The transition from school to university is marked by multiple social, academic, personal and institutional adjustments (Collings et al., 2014; Grant-Vallone & Ensher, 2000; Scott, 2009; Van Schalkwyk et al., 2009) which impact on the first-year student's wellbeing and performance (Clarke, 2005; Collings et al., 2014; Harvey et al., 2006; Van Schalkwyk et al., 2009) leaving them at risk for early drop-out (Bowman & Bowman, 2000; Clarke, 2005; Harvey et al., 2006). Due to massification, more first-year students are entering HE underprepared, making the first year experience even harder and adjustment more difficult (Fox et al., 2010; Harvey et al., 2006). Consequently, HEIs have become increasingly concerned about first-year students and have begun investing more in the FYE and in first-year success (Botha & Cilliers, 2012; Clarke, 2005; Harvey et al., 2006; Scott, 2009; Van Schalkwyk et al., 2009).

In SA too, first-year attrition is a major cause for concern (CHE, 2013; Scott, 2009), with the highest levels of attrition among the previously underserved African and Coloured groups (CHE, 2013). In addition to academic underpreparedness, socio-economic factors such as a lack of finances and poor

social support affect many first-generation African and Coloured students from low income families in particular (McGhie, 2012; Harvey et al., 2006), putting them at a greater risk of attrition. Poor performance of first-year students is, however, neither a new problem nor restricted to these groups of students, but is - as pointed out by the CHE (2013) - a long-standing problem in SA. It is further argued that much of the poor performance in HE can be attributed to the articulation gap between school and HE (CHE, 2013), and that this gap affects most students.

1.2.2. Adjustment of the first-year student

Adjustment to HE is a complex and challenging process that entails adjustment to a range of interpersonal, social, academic and institutional demands (Baker, 2004; Baker and Siryk, 2015; Credé & Niehorster, 2012). Both student attrition and academic performance are affected by adjustment, especially during the first year (Abdullah, Elias, Uli & Mahyuddin, 2010; Hurtado, Carter & Spuler, 1996; Schnuck & Handal, 2011). Studies have found that adjustment during the first year has an impact on attrition and academic performance (Abdullah et al., 2010; Baker & Siryk, 1984; Credé & Niehorster, 2012; Gerdes & Mallinckrodt, 1994). Adjustment during the first year also sets the tone for future academic success or failure (Davidowitz & Schreiber, 2008; Fischer, 2007; Tinto, 2012).

Fischer (2007) warns against assuming that the adjustment is the same for all students. Some students might struggle with adjustment, while others might adjust with ease. And while most students face some adjustment challenges, FGS confront additional challenges. As mentioned, FGS often enter HE less academically prepared. Poor academic preparation at school level, lower grade entry requirements to HEIs and a lack of resources all contribute to adjustment challenges during first year (Trow, 2000; Fischer, 2007). They are often also socially underprepared for HE and this impacts on their adjustment (Fischer, 2007). FGS need to adjust to an institution that have traditionally been elitist institutions catering for students from advantaged economic backgrounds (Altbach, 1999; Ramdass, 2009; Shin & Harman, 2009; Trow, 2000), and they might struggle to fit in. The new HE environment is accompanied by many new experiences, new demands and new challenges (Conley et al., 2013; Credé & Niehorster, 2012), and adjusting to this new institutional culture can be particularly stressful for FGS. FGS are often not as informed of what to expect, as their parents are unfamiliar with the operations of HE and cannot serve as guides to them prior or during their first year (Tinto, 2012; Jehangir, 2010). They might also experience a mismatch between their expectations and actual experience at university, which could negatively impact on their adjustment and increase their risk of attrition (Pather & Dorasamy, 2018). Within the South African context, the adjustment of FGS students from low income backgrounds, who are often African and Coloured students, is the toughest - as these students face the most challenges. In addition to the adjustment challenges faced by all students, these students confront further challenges such as financial

challenges, transport and housing difficulties, language difficulties and coming from poorer educational backgrounds (McGhie, 2012; Sennet, 2000; Sennnet, Finchilescu, Gibson & Strauss, 2010; Sommer, 2013). HEIs are required to support students with their transition, as adjustment can negatively affect their wellness and academic performance (Davidowitz & Schreiber, 2008).

1.2.3. Peer mentoring programs

In response to the challenges faced by students during the first year, many HEIs have developed formal support systems specifically for first-year students (Collings et al., 2014; Harvey et al., 2006; Kuh et al., 2010; Kuh, 1995; Tremblay & Rodger, 2003; Van Schalkwyk et al., 2009), one of which is mentoring programs. Formalised mentoring programs have become increasingly popular, as the advantages of these programs are being demonstrated through research and recognised in literature (Allen, McManus & Russel, 1999; Grant-Vallone & Ensher, 2000; Knowles & Parsons, 2009; Tremblay & Rodger, 2003). Peer mentoring specifically has significantly grown in importance in recent years (Shotton et al., 2007; Collings et al., 2014). Within the South African context, where increasing numbers of FGS from the previously underserved groups are entering HEIs underprepared, peer mentoring programs have become a pivotal part of the formal support offered to first-year students (Mammen, 2012).

With high first-year attrition remaining a global challenge, peer mentoring programs have been increasingly implemented as a means of improving retention (Shotton et al., 2007; Tremblay & Rodger, 2003; Collings et al., 2014). A major factor influencing student retention is student adjustment, and peer mentoring programs were found to assist students with adjustment during the first year (Collings et al., 2014; Allen et al., 1999; Grant-Vallone & Eshner, 2000; Treston, 1999). Peer mentoring programs may also indirectly contribute to student wellness, although most peer mentoring programs do not highlight this as a goal. Various studies have demonstrated that adjustment has a significant impact on students' wellness (Clarke, 2005; Collings et al., 2014; Harvey et al., 2006; Van Schalkwyk et al., 2009). Students that adjust well, tend to present with lower levels of stress and lower levels of emotional distress (Davidowitz & Schreiber, 2008), while poor adjustment could precipitate poor academic, social and personal functioning (Davidowitz & Schreiber, 2008). These findings suggest improved wellness to be a consequence of good adjustment, and given this relationship between adjustment and wellness, it is possible that successful peer mentoring programs could indirectly contribute to student wellness.

The peer mentoring program at Stellenbosch University (SU) differs in this regard, as it gives more prominence to student wellness by intentionally promoting wellness. A primary goal of the program is to facilitate the adjustment of students through the optimization of their holistic wellness. The

wellness focus is also captured in the name of the program, as it is called the Be Well Peer Mentoring Program, and the wellness component is a main discussion point in the mentor sessions with first-year students. Anecdotal reports suggest positive outcomes (Botha & Cilliers, 2012), but no scientific investigation has been done on the outcomes of the program. It is for this reason that this study was done. In general, research on peer mentoring is more limited than research on the traditional forms of mentoring (Knowles & Parsons, 2009), highlighting a gap in the literature on peer mentoring. This study aims at making a positive contribution to this gap in the literature by investigating the effect of the peer mentoring program on first-year student adjustment at SU.

1.3. STATEMENT OF THE PROBLEM

Similar to many other universities worldwide and most South African universities, SU is struggling with the dual challenge of access and success. While broadening access is important, the University also acknowledges that access needs to be accompanied with success. SU has one of the highest undergraduate success rates in SA, but various factors, amongst others the diversification of the student population, have put these success rates under pressure. Success rates of African, Coloured and Indian students are still lower than those of their White counterparts. Academic performance during the first year, in particular, shows lower success rates for these students, as can be seen in Table 1.1.

Table 1.1: Percentages of modules passed during 2012-2016 for first time entering first-year students at SU

	2012	2013	2014	2015	2016	Average
African	82.3%	76.8%	77.3%	74.3%	75.8%	77.3%
Coloured	82.7%	80.3%	78.0%	76.8%	78.5%	79.3%
Indian	85.4%	83.6%	81.6%	80.8%	80.3%	82.3%
White	85.6%	86.6%	86.4%	83.8%	86.7%	85.8%
Average	84.0%	81.8%	80.8%	78.9%	80.3%	

Source: Division Information Governance, 2018j

The success rates for first time entering students according to race during the period 2012 – 2016 are presented in Table 1.1[3]. As illustrated in Table 1.1, the success rates of African, Coloured and Indian first-year students are lower than those of their White counterparts. Success rates of African and

[3] The success rates refer to the modules passed, as percentage of the registered modules for each year, by first time entering first year students.

Coloured students are the lowest. The success rates of these groups also fluctuate, while the success rates of White students have mostly remained consistent around 85%. The success rates of Indian students have also been fluctuating, but have remained above 80% in recent years. The success rates of African and Coloured students are therefore worrying, given the cumulative effect that poor academic performance in the first year has on subsequent years. As will be discussed in Chapter 3 under section 3.3.4, graduation in regulation time for African and Coloured students are subsequently lower than those of White students.

The University's institutional plan for 2012-2016 states that "it is extremely important that the gap between success levels of the racial groups be bridged" (SU, 2012:7). For this purpose, the institution has put in place a variety of support programs focussed specifically on first-year students, such as the First Year Academy, Res Ed cluster initiatives (SU, 2015) and a peer mentoring program focussing on holistic wellness (Botha & Cilliers, 2012). However, not all of these initiatives have been evaluated and hence there is no scientific data to ascertain the effect that they have on the performance of first-year students.

1.4. PURPOSE AND GOALS OF THE STUDY

Based on the assumption that better adjustment in the first year will lead to better academic performance, this research study investigated whether participation in one of the above-mentioned initiatives, the peer mentoring program, contributed to the adjustment of participating first-year students. In this program, first-year students (mentees) are assigned to senior students (mentors) who are trained to facilitate formalised peer-assisted developmental opportunities during mentor sessions (Botha & Cilliers, 2012). Optimising the adjustment of participating first-year students by focussing on holistic wellness is a central part of these formalised sessions. Holistic wellness in this context includes six wellness domains: intellectual, emotional, social, physical, spiritual and occupational (Botha & Cilliers, 2012), based on the wellness model of Hettler (1984).

Although the peer mentoring program has been running since 2013 and a tracking system for the program is in place, the program's effectiveness has not yet been ascertained through a systematic and scientific investigation. That is what this study proposed to do. The study investigated how first time entering first-year students at SU benefited from participation in the peer mentoring program. More specifically, the effect that the peer mentoring program had on the adjustment of first time entering first-year students was investigated. Adjustment was conceptualised according to the definition of Baker and Siryk (2015, 1984) who define adjustment as a multi-dimensional process of interaction between an individual and his/her environment, whereby the individual develops effective coping strategies in order to adapt to the new environment and the various demands it brings. These demands vary in nature and degree. An existing standardised measuring instrument, the Student

Adaptation to College Questionnaire (SACQ), constructed by Baker and Siryk (2015), was employed to measure adjustment in this study. The SACQ is a 67-item self-report questionnaire that has been conceptualised according to the above definition of adjustment and is based on four subscales of adjustment, namely academic, social, personal-emotional and institutional adjustment (referred to as attachment).

The purpose and goals of the research provided the framing for the research questions. The following research question guided the study:

What difference, if any, has the peer mentoring program at Stellenbosch University made in terms of the adjustment of first time entering first-year students?

The following sub-questions also guided the study:

- Have participants in a peer mentoring program at Stellenbosch University experienced better adjustment during their first year than non-participants?
- How, if at all, has participation in a peer mentoring program contributed to adjustment of first-year students at Stellenbosch University?
- To what extent has the wellness focus of a peer mentoring program contributed to the adjustment of first- year students at Stellenbosch University?

1.5. THEORETICAL FRAMEWORK

Tinto's revised theory of student retention and success (Tinto, 2012) formed the theoretical basis for the study. His revised theory focusses on the institutional action that needs to take place to enhance student success (Perna, 2014; Tinto, 2007, 2012, 2014). Tinto argues that expanding access to a diverse student population is not enough; it is about completing a degree, not mere access. He furthermore argues that HEIs need to establish conditions that promote success. These conditions relate to student expectations, support offered to students, assessment and involvement - of which involvement, he maintains - is the most important condition. Students who are academically and socially more engaged with others on campus have a better chance of succeeding; these conditions are particularly critical during the first year of study (Perna, 2014; Tinto, 2007, 2012, 2014). My contention was that the peer mentoring program provides opportunities for academic and social engagement for participating first-year students at SU, which may have a positive effect on their adjustment and consequently on their academic performance and persistence. This program could therefore, according to Tinto's theory, be characterized as one of the institutional conditions promoting student success. Whether this is in fact the case, was investigated through this study. If evidence could be found that the program contributes to the adjustment of first-year students, it would

follow that this is a useful initiative that assists underprepared students in buffering the transition from school to university, which could in turn positively contribute to student success.

1.6. RESEARCH METHODOLOGY

The nature of the research questions was significant for the methodology of the study: they guided the entire research process. When framing the research questions, it was important to ascertain whether the purpose of the study would be explanation or understanding (Biesta, 2010). The central research question aimed to both explore and explain the phenomenon under study, requiring a combination of quantitative and qualitative data. It is for this reason that a mixed-method research design was chosen, together with a research paradigm suited to mixed-method research (MMR).

1.6.1. Research paradigm

As MMR is usually associated with the pragmatic paradigm, and as I intended to investigate a real-life, practical problem, I considered the pragmatic paradigm for this study. For pragmatists the 'what' and 'how' of the research problem is the focus (Creswell, 2003) and different approaches to understanding the problem are used, which often makes this paradigm the underlying philosophical framework for MMR (Mackenzie & Knipe, 2006). At a methodological level, pragmatism focusses on what works (Morgan, 2014; Ormerod, 2006) and regards the goal of research as providing practical solutions to social problems (Fishman, 1991; Ormerod, 2006). I wanted the study to be of value to the implementers of the program and to future participants of the program. Additionally I wanted the study to yield insight that would be of practical use to HEIs globally, regarding effective peer mentoring programs, and hence this paradigm was deemed appropriate.

1.6.2. Research design

As the purpose of the study was to both explore and to understand, the study required both exploratory (that would mainly generate quantitative data) and explanatory (that would mainly generate qualitative data) research questions. To answer these research questions, a mixed-method research design was adopted, as MMR is deemed appropriate when the purpose of the study and the research question warrant a combination of quantitative and qualitative data (Plano Clark & Badiee, 2010; Teddlie & Tashakkori, 2010; Creswell & Plano Clark, 2011), which was the case for this study. For the study I chose the explanatory sequential mixed-method design. This design is characterized by the consecutive collection of two data strands. Quantitative data is firstly collected and analyzed, followed by the collection and analysis of qualitative data; the rationale behind the second strand of data being to explain the quantitative data in more depth (Creswell, 2015; Ivankova, Creswell & Stick, 2006; Creswell & Plano Clark, 2011).

The explanatory sequential mixed-method design provided the structure for how to do the study. However, the study had a very specific purpose, namely to provide feedback on one of the outcomes of the program, and for this purpose, a formative evaluation sub-design was deemed to be suitable, as the aim of the study was to provide feedback that could improve program implementation.

1.6.3. Sampling

For the first phase (the quantitative data) no sampling strategy was employed, as I had access to the entire population. I was able to distribute the SACQ to the total population, i.e. all registered first time entering first-year students on the Stellenbosch campus[4]. The Division Information Governance of SU sent the student numbers of the relevant students to the staff member administering the SunSurvey[5] e-service of the University, who then uploaded their details onto SunSurvey. No identifying information reflected on SunSurvey when I accessed the completed questionnaires.

In the second phase, purposive sampling was applied, as requirements for participation in the focus group discussions were very specific. I wanted to explore the results from the first phase in more depth. I initially formulated the following criteria for participation in the focus group discussions:

1) Students who were in their first year of registration on the Stellenbosch campus in 2017.
2) Students who had participated in the peer mentoring program beyond the welcoming period.
3) Students who had completed at least one of the questionnaires (SACQ) administered in 2017.

I experienced challenges with regard to criterion three, namely participation in the first data collection phase. Some students were unable to recall whether or not they had completed one of the questionnaires in the previous year, and given the anonymity of the questionnaire responses, I was unable to identify the students to purposefully select them. I consequently had to discard the third criterion.

1.6.4. Data collection and analysis

As mentioned under section 1.5.2, I employed an explanatory sequential mixed-method design, and consequently collected two data strands consecutively. During the first phase quantitative data on the outcomes of the peer mentoring was collected. More specifically, it sought to ascertain whether students who had participated in the peer mentoring program had experienced better adjustment than

[4] While the peer mentoring program is offered on two of the University's campuses, the study was only done on its main campus in Stellenbosch. Exclusion criteria were applied to the other campus, the Tygerberg campus, due to the program's overlap with another program on the Tygerberg campus.

[5] SunSurvey is a web-based e-Survey service that enables postgraduate students and academic staff of SU to do online surveys.

non-participating students. Babbie and Mouton (2001) argue that, for the researcher to establish that a program has effected positive change, two factors need to be shown. "Firstly, that there has been a positive change over time; secondly that much of the change is due to the intervention and not due to other extraneous variables…In evaluation studies, the first condition is met through the use of pre- and post-measures…the second condition is met through the introduction of experimental and comparison (control) groups" (Babbie & Mouton, 2001:348). Bearing this in mind, I employed the pre-test post-test non-equivalent control group design, which is a quasi-experimental design. Due to ethical reasons, random assignment was not possible and consequently I was unable to employ a true experimental design.

I collected data from two groups, an experimental group consisting of first-year students who participated in the peer mentoring program after the welcoming period[6], and a control group that comprised of students who had not participated in the program at all or who had only participated during the welcoming period. The SACQ was distributed to the sample and data was collected both pre- and post-intervention. The SACQ was administered in March 2017 (pre-intervention) to participants in both groups and then re-administered in October 2017 (post-intervention). The quasi-experimental pretest-posttest survey yielded findings on the outcome, namely whether the program contributed to the adjustment of participating students. I still needed a qualitative method to delve deeper and to investigate how the program contributed to the adjustment of participating students, if at all. To achieve this, the survey was followed by focus group discussions with students who had participated in the peer mentoring program (the experimental group). These focus group discussions were facilitated by me between May and August 2018.

The data collected in each phase was analyzed separately. For the quantitative data, statistical analysis was employed to analyze and compare the responses to the questionnaires from the two groups, pre- and post-intervention, in order to determine whether the experimental group did in fact benefit from participation in the peer mentoring program and as a result had performed better on the SACQ. These results informed the interview schedule for the focus group discussions, as the focus group discussions aimed to explain the results from the SACQ. Themes that emerged from the questionnaires completed by this group were explored in more depth during these focus group discussions. The focus group discussions were recorded and transcribed. Interview transcripts were analyzed according to accepted qualitative analysis procedures of coding and re-coding, categorizing and interpreting, using the content analysis method. Finally, inferences were made from both data

[6] Welcoming period refers to the official welcoming program that the University offers to first-year students prior to the start of the academic program. The welcoming program runs over one and a half weeks.

strands. All the data gathered enabled me to answer the main research question and sub-questions and to ascertain to what extent and how the peer mentoring program contributed to first-year students' adjustment to HE.

1.7. POSITIONING OF THE STUDY

As mentioned earlier, the study investigated the effects of an existing peer mentoring program at a South African university. In spite of the popularity of peer mentoring programs, solid research on the outcomes of these initiatives is still lacking (Knowles & Parsons, 2006). The study aims to contribute to the current gap in this area. Tinto (2014, 2012) argues that HE institutions should, as part of their institutional action aimed at promoting student success, gain reliable data on whether a program succeeds in achieving its goals and how it needs to be improved in order to do so. Such data should then inform future decision making. The study explores the relevant field of student success within the current HE context. It specifically focusses on the FYE and ways of managing the adjustment challenges that first-year students are confronted with during their first year.

1.8. DISSERTATION STRUCTURE

This chapter provides a synopsis of the study. Chapters 2, 3 and 4 make an argument for the study by reviewing and interpreting the relevant literature. Chapter 2 discusses the South African HE context, while Chapter 3 contextualizes the institution offering the peer mentoring program, namely Stellenbosch University. Chapter 4 discusses the focus on the first year, with an emphasis on the significance of the first year, first-year attrition and adjustment during the first year. It further discusses peer mentoring within the HE context as a support initiative offered to first-year students. Finally, Chapter 4 explores a holistic approach to student success, primarily focusing on Tinto's theory on student retention and success, as this theory formed the theoretical basis for the study. Chapter 5 is the methodology chapter which explains the research design, sampling, data gathering and analysis. Ethical considerations are also attended to in Chapter 5. Chapter 6 outlines the results and offers an extensive discussion thereof. Chapter 7 concludes the dissertation as it draws together the findings of the study. Implications for future research are also explored.

1.9. CONCLUSION

Chapter 1 started with an outline of the current HE landscape, with a focus on the increased number of students entering HE underprepared as a result of massification of the higher education sector. This poses the dual challenge of access and success. Redressing the inequalities of the apartheid heritage through accelerated access of previously underserved African and Coloured students, poses unique challenges to the South African higher education sector. Given the global challenge of first-year attrition and the multiple challenges around adjustment during the first year, support to first-year students is high

on the agenda of HE in an attempt to address the high risk of attrition of the first-year student. Formalised support programs for first-year students have been initiated globally, amongst which peer mentoring programs have grown in popularity. In spite of the increase in peer mentoring programs, limited research is available on the outcomes of these programs. This study endeavours to contribute to filling the gap in the literature by investigating the outcomes of a peer mentoring program at a South African university.

CHAPTER 2
NATIONAL CONTEXT TO THE STUDY – HIGHER EDUCATION IN SOUTH AFRICA

2.1. INTRODUCTION

South Africa (SA) is one of the most unequal societies in the world. The oppressive colonial and apartheid systems have left a legacy of inequality along racial lines that is still affecting previously underserved groups (Stats SA, 2017). The African and Coloured groups have been worst affected by these oppressive systems and still battle with higher poverty rates compared to Whites and Indians. The education system has played a significant role in the inequality levels currently confronting SA. The higher education system in particular was set up to advantage White South Africans, while other racial groups were disadvantaged. Whites had easier access to higher education (HE) and higher education institutions (HEIs) designated for them were much better resourced, and consequently their quality of education was higher. This, in turn, created better job prospects and other social and economic benefits for the White population. The African majority was most profoundly affected as they had very limited access to HE. HEIs designated for them received the least funding and resources and were of a lower standard. The inequality of the system held significant implications for the different racial groups and contributed to the high inequality rates still prevalent in the country. The first democratically elected government therefore inherited a higher education system that was unequal and fragmented, which needed to be redressed.

The end of apartheid in 1990 made way for a democratically elected government to take over in 1994 and this marked the start of a 'new' South Africa. The new government not only needed to transform the fragmented, unequal higher education system into a single, coordinated one (DoE, 1997), but also one that could play a significant developmental role post-apartheid. As a HE qualification creates opportunities for social mobility for students from lower socio-economic backgrounds, socio-economic development in SA would be achieved through social mobility amongst the previously underserved African and Coloured groups. Broadened access to the previously underserved African and Coloured population groups has been paramount to the new transformation and development agenda. However, broadened access also needed to be accompanied by success of African and Coloured students for purposes of social mobility and social and economic development.

While some gains have been made in creating a more co-ordinated higher education system and broadened access to African and Coloured students, the developmental agenda has been hindered by challenges with regard to access with success of the previously underserved groups. This chapter will

highlight these challenges by giving an overview of the current state of HE in SA. Given the significance of the inequality that has historically marked the education system, the chapter starts with a brief overview of the historical origins of basic education and HE. It then focusses on the higher education sector specifically, starting with an overview of HE during apartheid. Thereafter post-apartheid HE, with specific reference to the role of HE in post-apartheid SA and the current challenges facing the sector, will be discussed.

2.2. THE ORIGINS OF HIGHER EDUCATION IN SA

The South African education system is rooted in a colonial history of discrimination and inequality, with strong Dutch and English influences. The basic education system, dating back to 1658, originated under colonial conditions when the Dutch occupied South Africa in the middle of the 17th century. The first formal school opened its doors in 1658 with the specific intention to educate Black[1] slaves (Sehoole, 2006; Malherbe, 1925). Five years later, in 1663, a school for White children came into being (Malherbe, 1925). Influenced by the Dutch who had occupied the land, the basic education system mirrored that of institutions in the Netherlands, giving it a strong Dutch flavour. For example, it was compulsory for learners to learn the Dutch language and elements of Christian religion (Sehoole, 2006). In the early 18th century the British occupied South Africa, which resulted in a strong English and European influence in the schooling system, while colonial conditions continued (Sehoole, 2006; Soudien, 2015). The basic education system therefore originated in a political context of colonialism, led by the Dutch and British, and rooted within a framework of racial distinction and separateness. Separate schools were established for the children of Black slaves and the children of the White rulers, creating a schooling system that separated children based on their race and social class.

Similar to the basic education system, the South African higher education system was also shaped by historical colonial conditions, with the establishment of a series of colleges in the 19th century (Sehoole, 2006; Baumert, 2014). Given that it originated after the British had occupied South Africa, the English influence on the South African higher education system was (and in many respects still is) very strong (Soudien, 2015). The first HEI in South Africa, the South African College (SAC), opened in 1829 and prepared learners for matriculation and the HE examinations of the University of London (Baumert, 2014; Behr, 1988; Ritchie & Kent, 1918; Sehoole, 2006). The SAC was followed by the establishment of more colleges, such as the Diocesan College in Rondebosch (1848), St

[1] The term Black/Blacks refers to the generic category of all population groups not classified as White during the colonial and apartheid systems.

Andrews College in Grahamstown (1855) and Victoria College in Stellenbosch (1866), all prepairing learners for examinations at European Universities (Behr, 1988; Soudien, 2015).

Language has been significant in the HE context. Until 1910 English was the medium of teaching and examination at HEIs. Afrikaans-Dutch as medium of instruction was only actively promoted since 1913 and came to fruition when the first Afrikaans-medium University, Stellenbosch University (SU), originated from one of the colleges, i.e. Victoria College (Malherbe, 1925). English and Afrikaans remain the languages of instruction at HEIs and this presents a lot of challenges for many African students who do not have the opportunity to study in their first language. HEIs have been, and still are, unable to offer tuition in any of the other official languages mostly spoken by the African majority.

Under colonial conditions the SA higher education system was created with very specific political and economic considerations in mind (Ritchie & Kent, 1918; Soudien, 2015). Ritchie and Kent (1918) argued that the colonial context at the time needed a higher education system to facilitate and maintain the exploitation of natural and human resources for the colonial economy. This system was to benefit and strengthen the colonial, White elite male (Behr, 1998), while simultaneously being inaccessible to the Black majority of the country (Soudien, 2015). This held significant economic and social implications, the remnants of which are still present today. This chapter will illustrate how HE in South Africa has been struggling, and still does, to rid itself of these original influences related to inequality, especially in terms of race and class.

2.3. HIGHER EDUCATION UNDER APARTHEID

Deriving from its colonial roots, inequality in the South African higher education system continued under the apartheid regime, from 1948 until 1990. The National Party government promoted separate development for different racial groups and in doing so perpetuated the system of inequality that existed under colonialism, but with a stronger racial foundation. Racial segregation was institutionalised and supported by legislation (Baumert, 2014; Maassen & Cloete, 2002). Under the apartheid government, segregation was legalised and consequently inequality was entrenched through various acts such as the Bantu Education Act No 47 of 1953, the Extension of University Act No 45 of 1959 and the Republic of South Africa Constitution Act No. 110 of 1983.

The education sector was first affected by this legislation with the implementation of the Bantu Education Act No 47 of 1953. The Bantu Education Act No 47 provided for the establishment of a separate schooling system for Blacks (O'Malley, 2016a), which would contribute significantly to the under-development of the African majority in particular. During the apartheid era, the official government position was that Africans were not to aspire for skilled jobs in the South African society,

and hence they did not need to be educated for high skills positions (O'Malley, 2016a). Consequently, this Act provided them with basic education that was of a much lower standard than that for other racial groups, leaving them at a great disadvantage educationally, socially and economically. The Extension of University Act No 45 of 1959 followed the Bantu Education Act of 1953.

The Extension of University Act No 45 of 1959 enabled the government to make significant changes to the higher education system, changes that would benefit Whites and disadvantage Blacks. The higher education system was racially segregated, with separate HEIs offering tuition for different racial groups. New universities were established for the African, Coloured and Indian population groups and it became a criminal offence for students from these racial groups to enrol at the formerly open universities, which were designated for Whites, without written permission of the relevant minister (O'Malley, 2016b). This system created an unequal higher education system, with more resources and funding allocated to universities serving Whites. Universities for Africans were most disadvantaged in terms of resources, which also affected the quality of education offered at these institutions.

The Extension of University Act also provided for the establishment of two new types of HEIs: technikons and colleges. This distinction was made on the basis of the distinct and different purposes of each of these types of HEIs. The primary function of universities became science, i.e. the creation of new knowledge. Technikons focussed on the application of knowledge and consequently had a vocational focus, training students to apply scientific knowledge. Colleges, on the other hand, offered very specific vocational training, for example teacher training colleges, nursing colleges and agricultural colleges (Baumert, 2014; Bunting, 2002b; Odhav, 2009). This distinction between universities, colleges and technikons contributed to the educational and economic inequality marked by the apartheid regime. The White minority could be accommodated at universities, which enabled them to enter high-level professions with better income prospects (Baumert, 2014; Bunting, 2002b; Odhav, 2009), which maintained the White elitism in South Africa. Following the Extension of University Act, the Republic of South Africa Constitution Act No. 110 of 1983 gave birth to a new constitution for the country (O'Malley, 2016c). This Act strengthened the inequalities in the higher education sector.

The Republic of South Africa Constitution Act No. 110 afforded the white government the governance of the education of Africans, compared to education for other racial groups being administered separately by designated departments. Education for Whites was governed by the House of Assembly, education for Coloureds was the responsibility of the House of Representatives and the House of Delegates had the responsibility for the education of Indian South Africans. In contrast, education for Africans was considered a 'general affair' and the responsibility for their education was

vested in a governmental department under the control of the white government (Bunting, 2002b). This enabled the government to directly control the education of the African majority. The different government departments involved in governing the HEIs had an unequal allocation of finances and resources. Historically, White HEIs were privileged, Coloured and Indians institutions received much less than White institutions, but still more than African institutions (Bunting, 2002b), leaving access to well resourced institutions largely to White students (Boughey, 2002).

In addition to education, the Republic of South Africa Constitution Act No. 110 of 1983 strengthened the racial segregation in the country as a whole and in all spheres of life, including HE (Bunting, 2002b; O'Malley, 2016c; Sehoole, 2006). This new legislation enabled geographical segregation based on race, and this segregation was accompanied by different levels of resources and development for the different racial groups. Africans were the most disadvantaged: they were housed in the rural areas, referred to as the homelands, and were put at a major disadvantage in terms of resources, which expanded to the basic education and HE designated for them (Goduka, 1996). HEIs for African students were also limited in potential by most often being located in these homeland/rural areas (Odhav, 2009).

The above-mentioned legislation and implementation of policies made the HE system a very unequal one. The apartheid legacy was a system with historically advantaged institutions (HAIs), which were historically White institutions, and historically disadvantaged institutions (HDIs) that served other racial groups (Odhav, 2009). White students, and in particular White male students, were overrepresented in the system and HE did not reflect the demographics of the broader population where Africans were the majority (Bunting, 2002a). Skills levels were also different for the different racial groups. Most of the African and Coloured students who had gained access to HE were equipped with a qualification from a technikon or college, compared to their White counterparts who had graduated with a university degree. These differences were significant not only in terms of employability, but also in terms of future economic prospects for those involved. When apartheid ended in 1990, the newly elected government was left with the challenge of transforming the unequal system it had inherited which would help transform the socio-economic landscape of SA.

2.4. HIGHER EDUCATION POST- APARTHEID

The colonial and apartheid heritage left the South African society with social inequalities embedded in all spheres of life, and the South African higher education system was no exception (DBSA, 2010). In a post-apartheid SA, the higher education system needed to be transformed both in terms of the marked inequality between HAIs and HDIs, as well as in terms of the demographics of students enrolled at HEIs. In addition to this transformation, HE also had to play a central developmental role that would be achieved by training students from previously underserved African and Coloured

groups in particular. However, the process since 1990 has been a challenging one and the desired gains have not been achieved yet. This section explores the new role HE had to play in a post-apartheid SA, as well as the challenges currently confronting HE in SA. Ways of addressing these challenges are also explored.

2.4.1. The role of HE in a post-apartheid SA

The legacy of apartheid left the South African population a very unequal, and for many people, a poverty-stricken one. Twenty-five years post-apartheid, poverty trends still indicate that SA is one of the most unequal societies in the world (Stats SA, 2017). The Statistician-General of South Africa recently released a report on poverty trends in SA, based on data from 2006 to 2015. The report shows poverty measures across three poverty lines: 1) food poverty line (FPL)[2]; 2) lower-bound poverty line (LBPL)[3] and 3) the upper-bound poverty line (UBPL)[4]. The FPL is limited to food items and was set at R441 in 2015. While LBPL and UPBL levels are based on the FPL, they also include non-food items and were set at R647 and R992 respectively in 2015 (Stats SA, 2017). Figure 2.1 shows the poverty levels along these three measures for the South African population between 2006 and 2015.

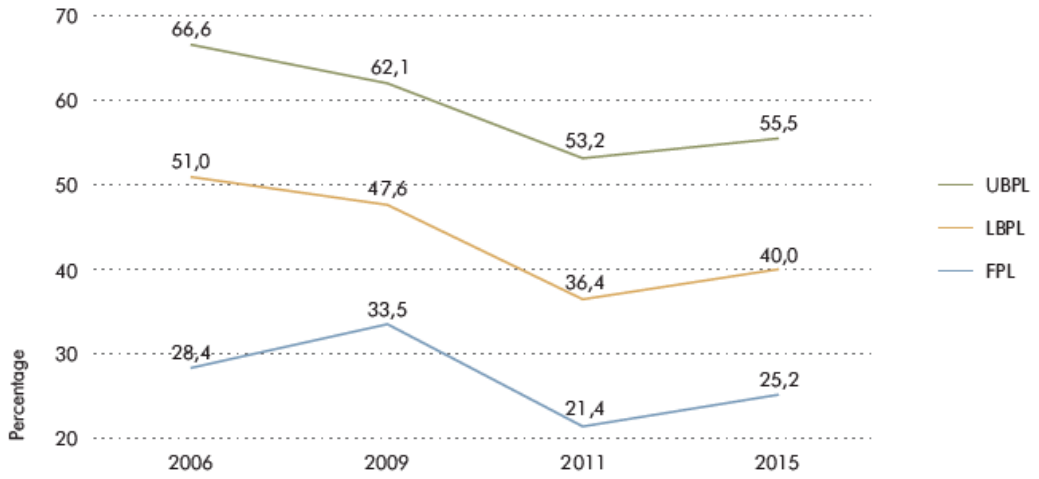


Figure 2.1: Poverty indicators based on FP, LBPL and UBPL, 2006, 2009, 2011 and 2009
Source: Stats SA, 2017: 15

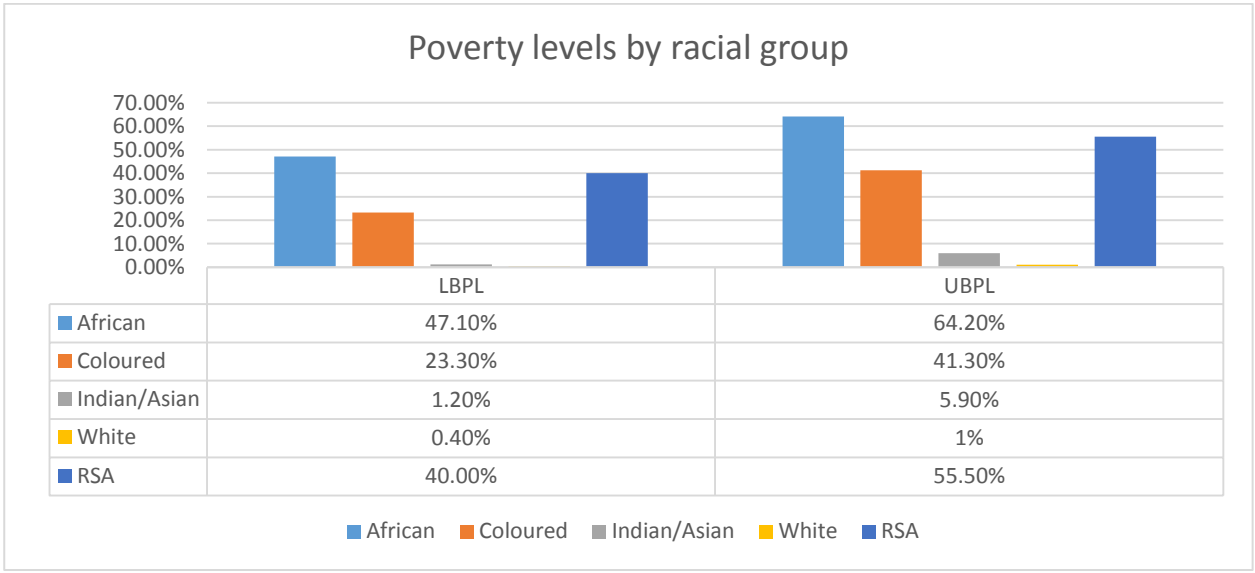
Even though the democratic government has made progress in terms of developing a more diverse middle income population, inclusive of African and Coloured South Africans, the lives of many South Africans from low income backgrounds are marked by poverty. As seen in Figure 2.1, poverty levels

[2] The FPL "is the rand value below which individuals are unable to purchase or consume enough food to supply them with the minimum per capita day energy requirement for adequate health" (Stats SA, 2017: 7)

[3] The LBPL includes individuals who are unable to purchase or consume both adequate food and essential non-food items, and consequently being forced to sacrifice food for essential non-food items (Stats SA, 2017).

[4] The UPBL include individuals who can purchase adequate levels of food and non-food items (Stats SA, 2017).

in SA are very high. If one looks at the most recent figures (2015), it shows that more than half of the population (55.5%) live below the UPBL of R992 per person per month; 40% live below the LBPL of R647 and 25.2% are unable to meet their daily food needs as they live off less than R441 per person per month. The figures show an initial decline in poverty since 2006, but unfortunately they reflect a worrying increase in all poverty levels since 2011. Against the backdrop of apartheid, poverty levels in SA remain racially skewed (as seen in Figure 2.2 below) and the government is still struggling to address the high levels of inequality.



	LBPL	UBPL
African	47.10%	64.20%
Coloured	23.30%	41.30%
Indian/Asian	1.20%	5.90%
White	0.40%	1%
RSA	40.00%	55.50%

Figure 2.2: Proportion of population living below the LBPL and UBPL in 2015 by racial group Source: Stats SA, 2017

Figure 2.2 shows the proportion on the population who lived below the LBPL and UPBL in 2015 per racial group. It clearly outlines the disparity in poverty levels between racial groups in SA. The highest poverty rates are amongst the African and Coloured groups, with Africans being the most affected. Poverty rates for Africans are the highest with 47.1% living at the LBPL and 64.2% at the UBPL respectively. In contrast, the Indian and White South African groups are barely affected by these poverty indicators. Whites are the least affected, with poverty levels of 0.4% at the LBPL and 1% at the UBPL. These statistics underscore the high levels of inequality still prevalent in SA, as well as the need for the South African government to address inequality for the social and economic betterment of the country.

Education has a key role to play in the development of SA. The importance of education in dealing with the inequality in SA cannot be overemphasized, as "education has the potential to eradicate poverty and minimize the impact of the triple challenges of poverty, unemployment and inequality" (Stats SA, 2017:61). HE in particular creates the opportunity for social mobility for students from low income backgrounds, as a tertiary qualification strengthens employment and higher income

prospects (Haveman & Smeeding, 2006). Given the significant role HE plays in social and economic development, access accompanied with success of students from low income backgrounds is pivotal for the developmental agenda in SA (CHE, 2004b; NCHE, 1996; Stats SA, 2017). Private benefits of HE are equally significant for students from low income backgrounds and extend far beyond financial benefit. Better job prospects and higher paying employment bring the financial means to improve one's overall standard of living (e.g. access to private health care) and strengthens saving and investment prospects (CHET, 2011). By producing a skilled labour market, HE not only holds private benefit, but also contributes to the social and economic growth of countries (CHET, 2011; CHE, 2004b). In post-apartheid SA, the private and public benefits gained through HE became central to the development of a new, more equal society.

The democratically elected government had the enormous task of restructuring the fragmented, unequal HE system of the past into an efficient, single coordinated system that would provide access to all South Africans (Boughey, 2002; Cloete & Bunting, 2000; Maassen & Cloete, 2002). In order to achieve this, it was important for the new government to replace the discriminatory laws and policies of the apartheid era with new ones that would assist the government in facilitating the changes that needed to occur in the HE system. The first five years (1994-1999) the government therefore focussed primarily on policy formulation and on how HE needed to be transformed (Cloete, 2002; Maassen & Cloete, 2002; Odhav, 2009). Since 1994, the government has laid a foundation for a new HE landscape in SA (DBSA, 2010; DHET, 2013; Jansen, 2004), guided by the framework stipulated in the Education White Paper of 1997, which outlines the transformation that needs to take place in HE and how the system would be transformed to serve a new societal order and meet pressing societal needs in SA (DoE, 1997; Ensor, 2002; Jansen, 2002). Increased and broadened participation is a key focus area highlighted by the White Paper (DoE, 1997). The National Plan on Higher Education (RSA, 2001) promulgated practical arrangements aimed at achieving these goals.

In addition to increased graduate output of African and Coloured students, HEIs also need to equip students with the graduate attributes needed to become critical citizens who can make a contribution to society and to developing the country (DHET, 2013). This is in line with the new developmental role of HEIs globally, where HEIs need to play a more significant role in equipping students with skills and knowledge which they can employ to the betterment of society (Mouton, Louw & Strydom, 2013; Ramdass, 2009; Schuetze & Slowey, 2002).

The developmental role that HE in SA is expected to play, has gained added significance within the context of a new global economy. According to Castells (2001), the new global economy offers great opportunities and has increased the standards of living for many individuals worldwide. While this is true, Castells further argues that the process has been uneven, as the new global economy has also

contributed to a deepening of the polarisation between the rich and poor, with the poor being more socially excluded and, in some countries, even poorer than before (Castells, 2001). African countries, in particular, have not benefited much from the new global economy and are increasingly marginalised (Castells, 2001; Soludo, 2001). HE is a key area that can contribute to ameliorate the negative effects of the new global economy (Hall, 2001).

In a new global economy, it is imperative for countries like SA to seek ways to improve the conditions of those living in poverty (Netshitenzhe, 2001). HE is a key role-player in this process and within this global context, it is even more important for HEIs in SA to facilitate substantial improvement in the performance of African and Coloured students from poor backgrounds. This can be addressed through institutional factors such as the institutional culture, student engagement and curriculum reform (CHE, 2013), as well as increased support to these students. More support programs should be offered to students from poor backgrounds, as high drop-out rates amongst these students often result in them exiting the higher education system with debt but with no qualification (DHET, 2011). This perpetuates or even exacerbates the poverty conditions from which these students are coming. In the new global economy HE is meant to improve the conditions of the poor, but having students from poor backgrounds exiting the system with debt and no qualification, the system not only fails in this role, it also becomes part of the type of polarisation between the rich and poor and the social exclusion of the poor that Castells (2001) warns against.

2.4.2. Current challenges facing HE in SA

After the initial period of policy formulation, post 1999 was declared the period of implementation during which increased and broadened participation by previously underserved African and Coloured students has been central (Jansen, 2002; Cloete, 2002). In spite of this, access to HE for these groups remains a challenge. This is primarily due to challenges within the basic schooling system. In addition to the challenge of access, HE is also confronted with multiple challenges related to students that do enter the HE system. Equity of access has not been accompanied by equity of outcomes, as high failure and drop-out rates - especially amongst African and Coloured first-generation students (FGS) - have hindered equity of outcomes (CHE, 2013).

The majority of the African and Coloured students gaining access to HE are FGS from low income backgrounds (DBSA, 2010). As FGS, they differ from their second+-generation peers both in terms of entering characteristics and HE experience (Aspelmeier, et al., 2012; Bui, 2002; Terenzini, et al., 1996), which often makes their adjustment during the first year harder and more complex. Being FGS from low income backgrounds, they face the most challenges during their first year and run the greatest risk of attrition during that year (Davies, 2010; Harvey, Drew & Smit, 2006; Tinto, 2012;

Tinto, 1993). The realities of FGS have certainly affected the success rates of African and Coloured students gaining access to HE. The following challenges will be discussed: participation and graduation rates, financial support available to students, first-year attrition and the adjustment challenges of FGS.

2.4.2.1. Participation and graduation rates

Figure 2.3 reflects the headcount enrolments in the public higher education sector, per racial group. As seen in Figure 2.3, the enrolment of African students in particular has increased consistently in recent years. According to the latest available statistics of 2013, African headcount enrolments constituted 80% of all enrolments, while Coloured student enrolments have also increased to comprise just less than 10% of all enrolments. In contrast to this, White student enrolments as a proportion of total enrolments have decreased in recent years to just less than 10% in 2013. Similarly, the proportion of Indian students in the higher education system progressively declined, reflecting a proportion of approximately 2% in 2013. It is, however, important to understand these enrolment proportions within the national demographics of SA.

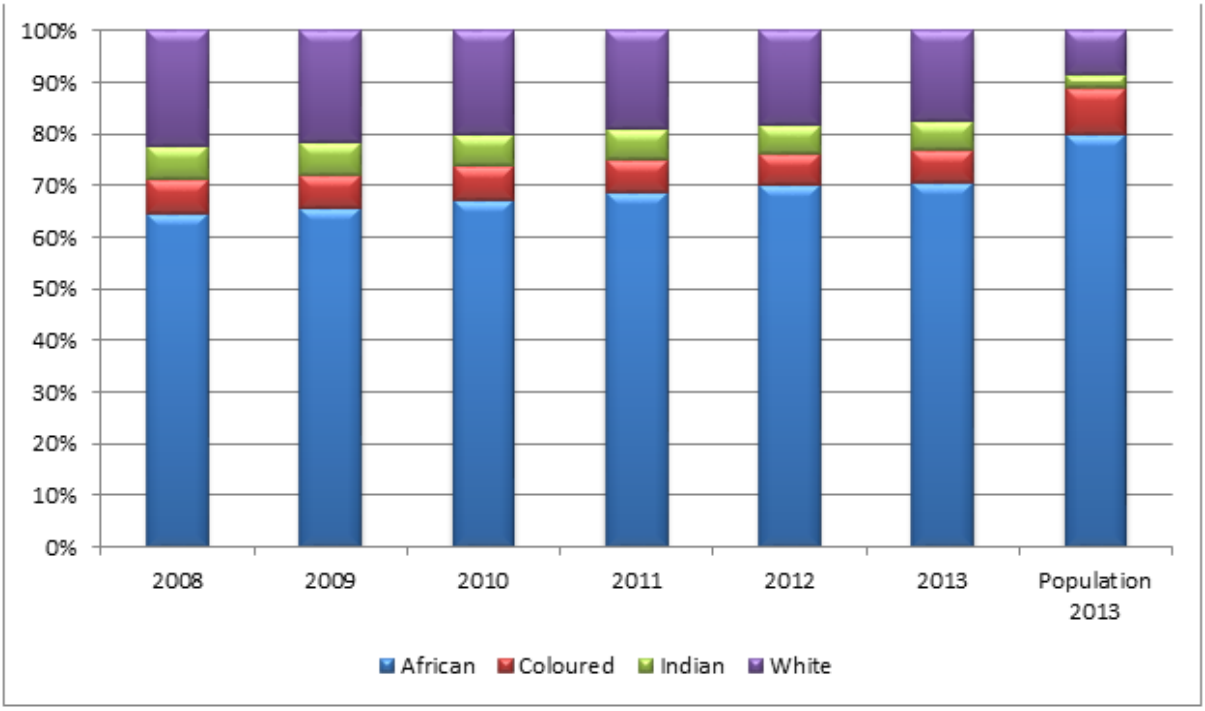


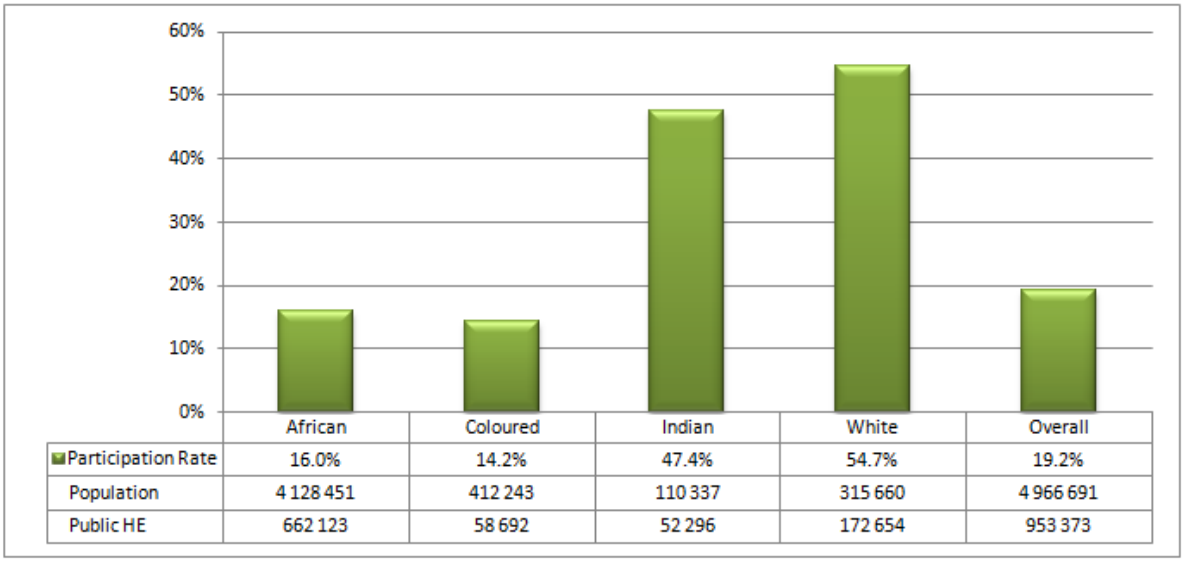
Figure 2.3: Headcount student enrolments in public higher education by race, 2008 to 2013

Source: CHE, 2018a

In spite of increased enrolments of African and Coloured students, the overall participation rate [5]remains low. The most recent statistics of 2013 are reflected in Figure 2.4 below. As shown in the

[5] The total enrolments expressed as a percentage of the 20-24 year old age group in the population.

figure, the overall participation rate for 2013 was 19.2%. While progress has been made in terms of African and Coloured student participation rates, the overall participation rates are still racially skewed and do not reflect the demographics of the country. As shown in Figure 2.4, participation rates of White and Indian students, at 54.7% and 47.4% respectively, are much higher than those of their African and Coloured peers.



	African	Coloured	Indian	White	Overall
Participation Rate	16.0%	14.2%	47.4%	54.7%	19.2%
Population	4 128 451	412 243	110 337	315 660	4 966 691
Public HE	662 123	58 692	52 296	172 654	953 373

Figure 2.4: Participation rates in the public higher education sector by race, 2013.

Source: CHE, 2018b

Figure 2.4 shows that participation rates of White and Indian students are comparable to those in developed countries, while participation rates for African and Coloured students remain low (CHE, 2013). These participation rates remain a barrier to the developmental role of HEIs, a role that requires even greater participation rates of African students who often come from the most underserved communities and who also represent the vast majority of the population. The developmental agenda is further compromised by high attrition rates of African and Coloured students that do access HE.

The Council on Higher Education describes the system as a low participation, high attrition one (CHE, 2013). High attrition rates - although not unique to SA but rather a global phenomenon - is of concern. The Council on Higher Education found that for the 2006 cohort, an attrition rate of 40% had occurred by the end of regulation time[6] (CHE, 2013; Cosser & Letseka, 2010; Scott, 2009). The highest attrition ocurred amongst the African and Coloured students (CHE, 2013) who already have the lowest participation rates. These low participation rates are accompanied by lower graduation rates

[6] The number of years a full-time student is expected to take to complete a qualification.

amongst African and Coloured students, which further challenge the agenda of equity of access and outcomes.

Graduation rates in SA are amongst the lowest in the world (DoE, 2001). A study on graduation rates in SA, conducted in 2007, shows that only 30% of first time entering students graduate after five years of study (CHE, 2007). Similarly, statistics from the Council on Higher Education (2013) indicate that 53% of the 2006 cohort enrolled for a 3-year degree graduated in five years, compared to 49% registered for a 4-year degree. It was also estimated that 41% of the cohort, for both 3-year degree and 4-year degree students, will never graduate. Lower graduation rates amongst African and Coloured students mean that graduation rates are still skewed along racial lines. Graduation in regulation time is also of concern, with lower graduation in regulation time amongst African and Coloured students (CHE, 2013, 2016).

Table 2.1 reflects graduation in regulation time for the 2006 cohort, for both 3-year and 4-year degree programs. As illustrated, graduation in regulation time is much lower for African and Coloured students enrolled at contact institutions.

Table 2.1: Graduation in regulation time for the 2006 cohort enrolled at contact institutions

	African	Coloured	Indian	White	All
3-year degrees	20%	20%	26%	43%	29%
4-year degrees	30%	28%	31%	47%	36%

Source: CHE, 2013: 43

The performance of the 2006 cohort, as seen above, reflects the following: graduation rates in regulation time for a 3-year degree were 20% for African and Coloured students, 26% for Indian students and 43% for White students respectively. This reflects rates of graduation in regulation time for Whites that are twice as good as those of African and Coloured students. For the same 2006 cohort, graduation in regulation time for a 4-year degree was slightly better: African students at 30%, Coloured students at 28%, Indians at 31% and, again, for Whites it was much higher, namely at 47% (CHE, 2013). These statistics suggest that African and Coloured students take longer to graduate, compared to their White and Indian counterparts. This, in turn, has financial implications for students and their parents.

2.4.2.2. Financial support available to students

HE is expensive and financial support has been a major challenge for FGS and FGS from low income backgrounds in particular (Breier, 2010; Cosser & Letseka, 2010; Gibbon, 2010). To assist the most financially needy students, the South African government established the National Student Financial

Aid Scheme (NSFAS). The National Student Financial Scheme Act 56 of 1999 was introduced to provide guidelines for the governance and administration of the fund. While this was a good start, the fund had a very low threshold of R120 000 per annual household income. As such, the fund only provided financial assistance to FGS from low income backgrounds and excluded many FGS from middle-income backgrounds, referred to as the 'missing middle', who also required financial support.

The success rates of FGS from low income backgrounds have been low. This is not surprising, given the numerous challenges they face. In 2009, a ministerial review committee found high attrition rates and low graduation rates amongst bursary holders of the National Student Financial Aid Scheme (DHET, 2012). Other studies also found that the vast majority of students dropping out of HE are FGS from low socio-economic groups (Letseka & Maile, 2008). Insufficient financial support has been reported to be a contributing factor to these high drop-out rates, with students at times exiting the higher education system to earn the required money to complete their studies at a later stage (Breier, 2010). This trend is worrying, as high attrition and low graduation rates amongst FGS from low income backgrounds would imply poor prospects of upward financial mobility for the poor, often African and Coloured students.

Insufficient finances not only put students at risk of attrition, but it also impact on the students' experiences at university. Finances pose a major challenge to the adjustment of FGS from low income backgrounds, as these students often have to study under very difficult circumstances with insufficient financial support. High-income parents can invest in resources that would contribute to their children's academic success, while parents of students from low income backgrounds are unable to do so (Haveman & Smeeding, 2006), making the HE experience more challenging for students who do not have these resources. Furthermore, FGS from low income backgrounds face the additional challenge of adjusting to an institutional culture that may have been designed for students from advantaged economic backgrounds, and this could lead to difficulties fitting in and developing an attachment to the institution.

While the government has tried to support financially deserving students through NSFAS, this funding model offered insufficient support to FGS from low income backgrounds and no support to FGS from middle-income backgrounds. Another challenge of the NSFAS has been that many students have been required to repay the scheme, as the National Student Financial Act made provision for some financial support to be given as a loan, not a bursary, determined by the student's academic performance (RSA, 1999). This has been a major source of anger and frustration, which saw students taking to the streets as part of the #FeesMustFall movement in 2015 and 2016. Students from middle income backgrounds have been equally frustrated and they joined this movement. The government's funding had made no provision for them, yet the cost of living in SA has made it increasingly harder

for their parents to afford HE fees. Since then, the government announced free education to all students who come from families earning less than a combined income of R350 000 per annum, to be initiated with the first-year cohort of 2018 (Tshwane, 2018). These proposed changes will address some challenges, such as attrition, associated with insufficient finances that have been adversely affecting students to date.

2.4.2.3. The challenge of first-year attrition

First-year attrition is a long-standing problem in SA and remains a major challenge (CHE, 2013; Scott, 2009). This is certainly not unique to SA, as will be discussed in Chapter 4 under 4.2.1, but rather a global problem. However, high first-year attrition is of great concern in the South African context where the higher education system is marked by a low participation rate, especially amongst previously underserved groups (CHE, 2013). Expanding access to previously underserved groups has, in part, been accelerated by the increased numbers of students gaining access to university based on the new National Senior Certificate (NCS) results (Mouton, Louw & Strydom, 2013; Nel & Kistner, 2009), which afforded more FGS access to HE (Cross & Carpenter, 2009; Govender & Moodley, 2012; Nel & Kistner, 2009; Schöer, Ntuli, Rankin & Sebastiao, 2010). The broadened access has, however, been accompanied by increased enrolments of students who are not well prepared for HE (Cross & Carpenter, 2009; Jansen, 2011; Van der Berg, 2007; Wangenge-Ouma, 2012), and this certainly contributes to high attrition rates in the first year.

In the South African context, the schooling system has had a major influence on the level of preparedness of students entering HE, and the articulation gap between the school and HE is considered one of the primary reasons behind high attrition in the first year (CHE, 2013, 2016; Mavunga, 2014). In a study on first-year success in SA, Mavunga (2014) found that students themselves attributed much of their academic underpreparedness for HE to the articulation gap between high school and university. This is concurred by the Council on Higher Education (CHE, 2013, 2016).

FGS from disadvantaged schooling backgrounds, often in rural areas, are affected even more by this articulation gap, due to the poor schooling system in these areas and the lack of resources in these schools (Cosser & Letseka, 2010; Gibbon, 2010; Letseka, Breier & Visser, 2010; Mavunga, 2014). Learners often exit the basic education system with poor literacy and numeracy skills, making them academically underprepared for HE (Mavunga, 2014). Inadequate resource allocation from government, teacher shortages and poor infrastructure continue to affect the quality of education, especially for FGS from low income backgrounds in the rural areas (Mavunga, 2014). A lack of access to technology such as computers/calculators/internet often leaves students overwhelmed when they enter HEIs where they are expected to be efficient in using technology (Mavunga, 2014).

Entering HEIs underprepared, FGS are certainly at a greater risk of attrition, with FGS from low-income backgrounds running the highest risk of attrition.

Limited or no career guidance also plays a role, as students often make wrong program choices. Some do not enrol for their first choice of study due to them not being accepted for their preferred program, or not having the financial means to enrol for their first choice of study (Cosser, 2010). FGS and FGS from low income backgrounds in particular encounter this challenge more often than their second+-generation peers. They are often uninformed of subject choices when making schooling and degree choices (Nel, Kistner & Van der Merwe, 2013), due to a lack of career guidance. Consequently, they fail to choose subjects that would have made them eligible for selection for their degree of choice. When they do not meet the criteria for admission to their degree of choice, they need to opt for their second choice or for any degree for which they can secure funding. This could make their adjustment to HE harder, as they might not have a real interest in their study program, putting them at a greater risk of attrition.

For many African students, language plays a significant role in their academic success (or lack of it). Most African students pursue HE in a second or third language, as predominantly English, and to a lesser extent Afrikaans are the languages of instruction at HEIs (Sennet, 2000; Sennnet, Finchilescu, Gibson & Strauss, 2010; Sommer, 2013). Consequently, poor skills in the language of instruction may lead to students' difficulties in understanding academic terminology and concepts, difficulties in writing essays or even in articulating themselves (Mavunga, 2014). This often requires extra effort to understand academic material and it could take the student longer to grasp concepts. Factors such as language not only put students at risk of attrition, but often also impact on the adjustment during the first year.

2.4.2.4. Adjustment challenges of FGS

Many students struggle to adjust in their first year. For FGS, adjustment is often harder and more complex, with FGS from low income backgrounds struggling the most, as FGS often enter HE less prepared (a more detailed discussion on the adjustment of FGS is given in Chapter 4 under 4.4.3). In a study on the low success rates of first-year students in SA, conducted by Mavunga (2014), students reported that the inability to adjust to university life was a primary factor leading to failure during the first year. This was concurred by a study done by McGhie (2012). Adjustment during the first year is therefore an important part of the university experience and will be discussed in more detail in Chapter 4 under 4.3. FGS from low income backgrounds face the most challenges when entering the higher education system and these challenges certainly make their adjustment more complex (Tinto, 2012).

In the South African context, FGS from low income backgrounds often need to adjust from an underserved community or rural community to an urban environment. They need to meet the demands of HE, coming from a disadvantaged educational background and poor schooling system (Sennet, 2000; Sennnet et al., 2010; Sommer, 2013). They often confront numerous psycho-social adjustments that may impact on their level of preparedness and even success at HEIs (Mavunga, 2014; Sennet, 2000; Sennnet et al., 2010). Material needs such as insufficient finances, transport and housing difficulties also pose adjustment challenges (CHE, 2013; Sennet, 2000; Sennnet et al., 2010; Sommer, 2013), as these students need to navigate around the financial and practical demands of their new environment - often with inadequate resources to do so.

The institutional culture could pose challenges for African and Coloured students enrolled at historically White institutions (Letseka et al., 2010), irrespective of their socio-economic background. A ministerial committee on T*ransformation and social cohesion and the elimination of discrimination in public higher education institutions* found that African students enrolled at historically White institutions were confronted with instances of victimisation on the basis of their skin colour (DoE, 2008). African and Coloured FGS from low income backgrounds are the most vulnerable, as they enter historically elitist institutions geared towards students from advantaged socio-economic backgrounds (Altbach, 1999; Ramdass, 2009; Shin & Harman, 2009; Trow, 2000). These adjustment challenges affect first-year students in different ways and have the potential to affect their academic success during their first year of study. Given the challenges confronted by students gaining access, increased support is paramount in improving the student experience and eventually the success rates of entering students.

2.4.3. Supporting students within the current context of HE in SA

HEIs should be sensitive to the unique adjustment challenges that the diverse student body entering HE could encounter (Petersen, Louw & Dumont, 2015; Sennet, 2000; Sommer, 2013; Sennnet et al., 2010), and various support mechanisms should be made available to assist all students with their adjustment challenges. In fact, some stakeholders in the higher education sector are of the opinion that it is the responsibility of the HEIs to ensure a smooth transition for diverse students, entering HE, into the institutional culture of the institution (DHET, 2010). While the challenge of increased numbers of underprepared students with adjustment difficulties is not unique to SA, it is important to understand the challenges within a global and local context to ensure that context specific challenges are understood and dealt with appropriately. The Department of Higher Education and Training (2010) holds the opinion that HEIs are required to provide suitable support that caters for the entire experience that these students might have at a HEI (DHET, 2010). Given the challenges highlighted above, supporting FGS with the challenges of underpreparedness and adjustment need to become a

major focus area of HEIs. In order to do so, HEIs need to reflect on the institution's readiness for the students gaining access.

2.4.3.1. Shifting from student readiness to institutional readiness

Fourie (1999) argues that transformation of HE is not limited to a change in staff and student composition, but that it also requires transformation of the organisational culture. Fourie (1999) further argues that transformation goes beyond the change in organisational culture. It extends to the development and acceptance of new shared values. In light of Fourie's argument, one could argue that the changing landscape of HE requires a shared value of commitment to support all students and to foster an environment that facilitates success of all students from all HEIs. This would require HEIs to fully support the increased numbers of underprepared students entering HEIs, instead of focussing on the skills that these students are lacking. This requires a shift towards institutional readiness, a shift that - according to Boughey (2002) - has started occurring in SA.

The concept of institutional readiness offers a broader framework for success and access. When considering institutional readiness, student success and access are framed beyond increased enrolment numbers, but rather on how HEIs can facilitate epistemological access to African and Coloured students, for example through their curricula, assessment practices, teaching methodologies, etc. (Boughey, 2002). The shift towards the transformation of institutional culture and institutional readiness is very important within the South African context, where HEIs have increasingly become more representative of the general demographics of the country.

2.4.3.2. Effective programs for first-year students

A shift in institutional readiness needs to be accompanied by effective support programs for first-year students. Supporting students with their psycho-social and adjustment challenges is of great importance. However, these programs need to meet the goals they have set out to achieve. Jansen (2004) argues that, with the right support, the success rates of FGS and FGS from low income backgrounds can be improved. This requires a sensitivity for the different challenges students might experience and the implementation of support initiatives that are in line with their needs and that are effective. It is for these reasons that this evaluation study is important, as HEIs need to gain feedback on what is working and what not, so as to ensure that students get effective support. It is important that HEIs know what the right support is, and it is through research on the contribution of existing programs, such as this evaluation study, that HEIs will be able to ascertain this.

2.4.3.3. Fostering student engagement

A focus on student engagement as a way of increasing student success is gaining more and more support. Strydom and Mentz (2002) argue that many students currently gaining access are

academically underprepared, and a narrow focus on academic preparation would therefore limit the possibilities for these students. Instead, the authors argue that there is an increased need for HEIs to focus on student engagement to increase the success rates of the diversity of students entering the higher education system. Authors such as Kuh, Kinzie, Schuh and Whitt (2010) and Tinto (2014) are increasingly alluding to the role that HEIs need to play in facilitating student engagement. HEIs need to become intentional in facilitating student engagement and student success (Kuh et al., 2010; Tinto, 2014).

The focus needs to shift towards institutions creating opportunities for engagement through the various initiatives they offer. HEIs need to do reflection on their practices and intentions and attempt to understand their place and role within the process of transformation in the country (DoE, 2008; CHE, 2013). This would imply a shift from thinking that students need to adjust to an existing institutional culture, to taking up the responsibility to intentionally facilitate engagement of all students. In SA, HEIs would need to put particular emphasis on the engagement of the underserved and underprepared first generation African and Coloured students entering HEIs, as a way of promoting student success. Kuh (2005) cautions that this needs to be done in a way that does not marginalise these students any further. It is my contention that the peer mentoring program at Stellenbosch University presents opportunities for engagement of participating students and, in doing so, can contribute positively to their adjustment during their first year.

2.5. CONCLUSION

Post-apartheid HE was given the massive task of transforming the higher education system and so contributing to the social and economic development of the country. Over the past two decades, some gains have been made in this regard. The government has laid a foundation for a new HE landscape in SA and it has succeeded in putting good legislation and policies in place. The higher education system is also less fragmented. The SA HE landscape has changed dramatically since 1994; the size and shape has changed and access to the previously underserved African and Coloured groups has been broadened. However, numerous challenges still exist. The higher education system has remained unequal and is struggling to fulfill its developmental role in the country. Participation rates still remain low and high attrition and drop-out rates, especially amongst African and Coloured students, have hindered the transformation and developmental role that HE is required to play. More and more students are presenting underprepared for HE, especially FGS from the previously underserved groups. While the quality of schooling, as well as the articulation gap between schooling and HE, contribute to underpreparedness, HEIs are required to take more responsibility for ensuring the successful completion of studies by African and Coloured students. This would require extensive support that will have an impact. It is against this backdrop that this study was done on the outcomes

a peer mentoring program at Stellenbosch University (SU). The next chapter will provide a contextual overview of SU and will introduce the peer mentoring program offered at the institution.

CHAPTER 3
INSTITUTIONAL CONTEXT TO THE STUDY – STELLENBOSCH UNIVERSITY

3.1. INTRODUCTION

As discussed in Chapter 2, South African HEIs are struggling with the dual challenge of broadened access and success. Many students gaining access are first generation students (FGS) who often present underprepared for HE, making adjustment during the first year more challenging. Chapter 2 also accentuated the need for HEIs in SA to offer comprehensive support to students, especially during the first year of study. Peer mentoring programs have grown in popularity in recent years. Many South African HEIs, and HEIs globally, offer peer mentoring programs to first-year students. In spite of the increase in popularity, research on the outcomes of peer mentoring in the HE context is still limited (Knowles & Parsons, 2009). Given the importance of effective support programs, in the South African context in particular, this study investigated the outcomes, in 2017, of one of the major support programs offered to first-year students at Stellenbosch University (SU), namely the Be Well Peer Mentoring Program. Before discussing the Be Well Peer Mentoring Program, this chapter will give a contextual overview of the University.

SU is situated in the Western Cape province of SA, more specifically in the Cape Winelands, approximately 60km from Cape Town (SU, 2016a). As a historically White Afrikaans-medium HEI, the University is one of the historically advantaged higher education institutions (HAIs) in SA. The University has a strong academic record and has always been committed to academic excellence (SU, 2016a). In line with the national agenda, participation rates of African and Coloured students have increased since 1990. Broadened access to African and Coloured students has, however, posed some challenge to the institution's commitment to academic excellence, as many African and Coloured students gaining access are students who are less prepared for HE. The success rates of African and Coloured students have been lower than their White counterparts. Supporting underprepared students remains high on the agenda, and consequently the University offers an extensive range of support programs to all students, with specific programs aiming at assisting first-year students with their transition from school to university.

This chapter starts with a brief overview of the historical context of the institution. It then discusses some of the changes since 1994, with specific reference to the change in the demographic profile of students gaining access. The change in the student demographics has certainly brought some challenges. The success rates of African and Coloured students, as well as the adjustment of these

students, are some of the primary challenges confronting the institution, and these challenges will be discussed. Finally, the chapter introduces the Be Well Peer Mentoring Program that has been implemented to address some of the current challenges faced by the institution.

3.2. HISTORICAL CONTEXT OF SU

This year, 2018, marks the centenary of the institution. As mentioned in Chapter 2 under section 2.2, SU originated from Victoria College and came into existence in April 1918 - to become the first Afrikaans-medium university in SA (Brink, 2006). Given the political climate at the time, the University was set up with a specific purpose, and that was to support the idea of Afrikanerdom. This purpose is expressed by the Council of Victoria College (the college from which SU was originated), as cited in Brink (2006: 20), as being the place from which the "Afrikaner volk can best realise its ideals and exercise the largest influence". The Afrikaans language therefore holds historical significance for the institution and is deeply embedded in the origins of the University back in 1918. As will be discussed in section 3.3, language at the institution, particularly the language of instruction, has remained a contentious issue.

During the apartheid era, White Afrikaans-medium universities were supportive of the apartheid government; they supported the race-based policies by which students were accepted to study at the institution and made little attempt to accept students from other racial groups via the permit system (Bunting, 2002b). This resulted in a vast majority of White students enrolled at the White Afrikaans-medium universities. At the end of 1990, the white Afrikaans-medium universities had a total student enrolment of 96% White students. This did not reflect the demographics of the general South African population (Bunting, 2002b). In this regard SU was no exception, as can be seen in Table 3.1.

Table 3.1: Student enrolment by race at SU in 1990

Population group	White	Coloured	African	Indian
Undergraduate	9395	511	5	6
Postgraduate	3811	171	44	14
Occasional Student	161	4	0	0
Total	13367	686	49	20
Percentage	94.7%	4.9%	0.3%	0.1%

Source: SU Division Information Governance, 2016a

Table 3.1 shows the headcount student enrolments by race in 1990. When analysing the percentages, White students made up 94.7% of the enrolments (which was slightly lower than the total of 96% at the historically White Afrikaans-medium universities combined). Only 4.9% of the student population were Coloured, while African and Indian student enrolments did not even make up 1 %

of the student population. A mere 0.3 % of the students enrolled were African and 0.1% were Indian. With the changes that occurred in SA after 1990, SU needed to adjust to the changing political climate in the country and to the new role HEIs had to play. Enrolling more African and Coloured students at the institution became imperative within the new context.

The process of change has, however, been slow at SU. The 1990's saw little change at the institution, compared to most other HEIs in the country (Gibbon, 2010). It was only by the end of the 1990's that the University drafted a plan for transformation of the institution. This came into fruition in 2001 as *The Strategic Framework for the Turn of the Century and beyond*. The strategic document acknowledged the role the University had played in the past, but more importantly, outlined the role the University wished to play in the future. A primary focus was the repositioning and renewal of the University, not only within a changing HE landscape in SA, but also globally. This repositioning included redress of the student demographics and an emphasis on increased support for students, ranging from academic support for underprepared students to financial support for students in need of financial assistance (SU, 2001).

More or less a decade later, the Strategic Framework was translated into the University's *Institutional Intent and Strategy, 2013-2018.* Broadening access, sustaining the momentum of academic excellence and enhancing societal impact were the three strategic themes identified in this document (SU, 2013). This required a dual focus on access (broadening access) and success (maintaining academic excellence). Broadening access implies increased enrolments of African and Coloured students, which inevitably includes an increase in FGS and FGSs from lower income backgrounds. As pointed out before, FGS confront many challenges when entering HEIs. They often enter less prepared for HE (academically, socially and culturally), making adjustment to HE and student success more difficult for them (Fox, Stevenson, Connelly, Duff & Dunlop, 2010; Harvey, Drew & Smith, 2006). FGS from low income backgrounds in particular face the most challenges during their first year, and they run the greatest risk of attrition (Davies, 2010; Harvey et al., 2006; Tinto, 2012; Tinto, 1993). Broadening access to FGS, and FGS from low income backgrounds in particular, have certainly made the process of maintaining the academic success rate at the institution more challenging.

The *Institutional Intent and Strategy, 2013-2018* captured a new vision for the University, Vision 2030, that envisions SU as an inclusive, innovative and future focused university. The University has aimed to make an even greater contribution in South Africa and Africa through innovation, academic excellence and research, and by producing critical, socially engaged graduates. The University has further aimed to deliver engaged citizens and responsible leaders who are willing to use their expertise and skills to serve society (SU, 2013). This vision extends beyond access: it seeks to equip students

with the graduate attributes required to make a contribution to the social and economic betterment of the South African society. In spite of being slow to change, the University has definitely come a long way since 1990 with regard to repositioning itself and in setting a clear vision that is in line with the transformation agenda of HE in SA. In its centenary year, it has introduced a new vision, Vision 2040, aimed at extending the progress made to date. With the expiring of the *Institutional Intent and Strategy 2013-2018* this year, the *Strategic Framework 2019-2024* that supports Vision 2040 was also launched.

Vision 2040 envisions the University as Africa's leading research intensive university, gaining global recognition for its excellence, inclusivity and innovation and aiming to advance knowledge that would serve society. Accompanying this vision is the new *Strategic Framework 2019-2024.* This strategic framework is aligned with the new vision and identifies core strategic themes that would facilitate the realization of this new vision. The strategic themes identified are as follows: 1) a transformative student experience; 2) networked and collaborative teaching and learning; 3) research for impact; 4) purposeful partnerships and inclusive networks; 5) employer of choice and finally, 6) a thriving SU (SU, 2018).

Vision 2040 reaffirms the institution's commitment to inclusivity and academic excellence. Aspirations for the realization of Vision 2040 include an aspiration "towards a transformed and integrated academic community that is committed to democracy, human rights and social justice" (SU, 2018: 14). The aspiration towards an inclusive, transformed, integrated institution includes a commitment to grant access to "qualifying students from all backgrounds, including students who face barriers to participation" to tertiary education (SU, 2018: 20). This speaks to the massification agenda of HE in SA that has broadened access to students from previously underserved groups. The institution's commitment is, however, not merely towards access, but rather to be an institution that has transformed to such an extent that the diversity of students gaining access to the institution are also integrated as part of the SU community.

Academic excellence remains part of the vision, as the institution aspires towards "an impeccable reputation as a proud African knowledge hub that serves the continent through research and innovation" (SU, 2018:14). While the new vision aspires towards academic excellence, the academic focus is primarily research based, with a specific purpose of producing research in service of society. Vision 2040 therefore builds on Vision 2030, but with a stronger emphasis on addressing societal needs through its aspirations of an even more inclusive, transformed community and through increased research, specifically aimed at producing knowledge for the benefit of society.

3.3. THE CURRENT CONTEXT OF SU

Currently the University has five campuses: the main campus in Stellenbosch, Tygerberg campus, Bellville campus, Saldanha campus and a relatively new campus in Worcester. SU hosts a total of ten faculties on the five campuses. The main campus in Stellenbosch hosts the Faculties of Arts and Social Sciences, Science, Education, Agrisciences, Law, Theology, Economic and Management Sciences and Engineering. The Faculty of Medicine and Health Sciences is situated at Tygerberg, adjacent to the Tygerberg Academic Hospital. The Business school is in Bellville and the Military Sciences Faculty in Saldanha. The fifth campus in Worcester was officially opened in 2012 with the launch of the Ukwanda Rural Clinic of the Faculty of Medicine and Health Sciences (SU, 2016a). This section will discuss the institution's enrolment trends and the change in demographics of the student profile that has accompanied broadened participation. The adjustment of African and Coloured students is briefly discussed. As the first Afrikaans-medium HEI in SA, language remains significant to the institution - and this will also be discussed.

3.3.1. Student enrolment trends

In line with the massification of HE nationally, gross enrolments have increased significantly since 1990. Table 3.2 below tracks the increase in enrolments since 1990 over five-year intervals. As can be seen in Table 3.2, a total of 9 917 undergraduate and 4 040 postgraduate students were enrolled in 1990, making the total enrolments 13 957. In 2017, the year when the evaluation study was done, the University had a total enrolment of 32 301 students, with 19 574 undergraduate students (60.60%), 10 559 postgraduate students (32.70%) and 2 168 occasional students (6.70%) (SU Division of Information Governance, 2018a). These enrolments reflect the increase in gross enrolments since 1990.

Table 3.2: Undergraduate and postgraduate student enrolment by race at SU from 1990 – 2015

Population group	1990	1995	2000	2005	2010	2015
Undergraduate enrolments						
White	9395	9059	10210	11088	12475	12644
Coloured	511	1114	1409	2036	2676	3723
African	5	95	1290	550	1125	2200
Indian	6	42	130	189	248	473
Total	**9917**	**10310**	**13039**	**13863**	**16524**	**19040**
Postgraduate enrolments						
White	3811	3766	4376	4221	5213	5309
Coloured	171	307	709	1021	1785	1434
African	44	282	2983	1932	2770	3013
Indian	14	53	275	234	275	295
Total	**4040**	**4408**	**8343**	**7408**	**10043**	**10051**

Source: SU Division Information Governance, 2016b

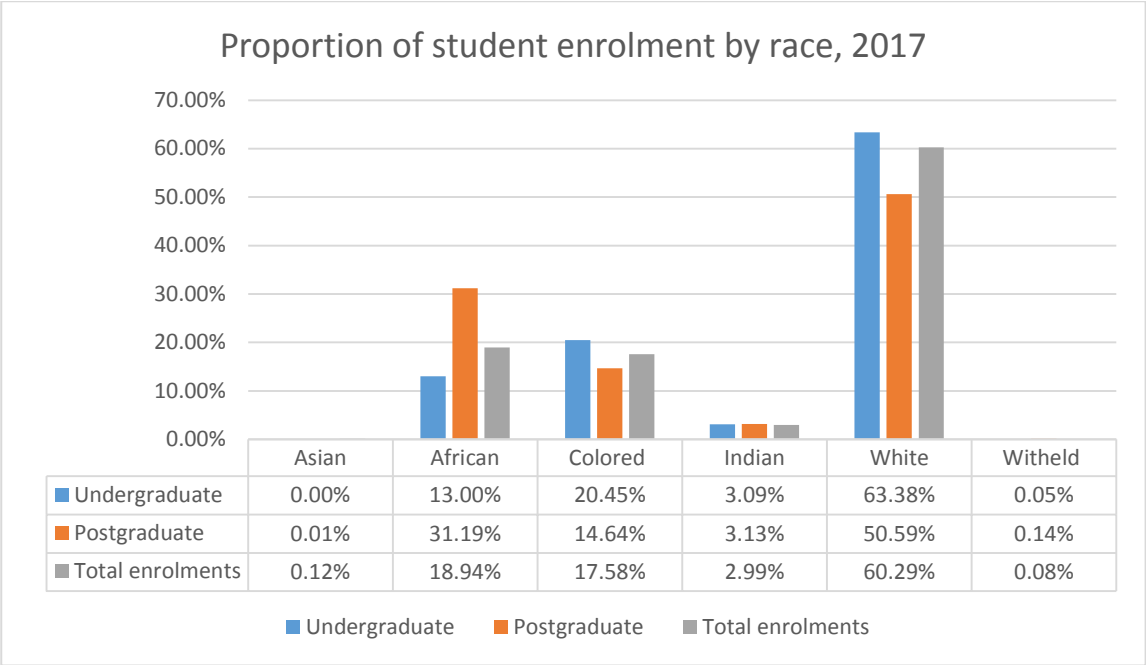
Table 3.2 also shows enrolment figures by race since 1990. As can be seen in Table 3.2, the racial profile of the student population has changed significantly since 1990. The University shows an

increase in enrolments of especially African and Coloured students. While the student population has become more racially diverse, Table 3.2 also supports the argument that SU was initially slow to change, as the figures reflect very little change in the student demographics in the 1990's. It is only after implementation of the *Strategic Framework for the Turn of the Century and beyond* in 2001 that access to African and Coloured students was significantly broadened. Overall, the progress with regard to broadening access to African and Coloured students has been slow when compared to the national changes that have occurred since 1990 (Gibbon, 2010).

3.3.2. The current student profile

The University attracts mostly South African students, with the vast majority of students being of South African nationality: 95.8% undergraduate and 81% postgraduate students respectively (SU Division of Information Governance, 2018b). The low levels of international students at undergraduate level could be attributed to the medium of instruction at the institution, which has historically been Afrikaans. Progress in terms of introducing English as medium of instruction has been slower for undergraduate programs than for postgraduate programs, which most likely contributes to the higher levels of postgraduate international students enrolled. Most students originate from the Western Cape province: 65.2% undergraduate students and 63.7% postgraduate students (SU Division for Information Governance, 2018c). This is not surprising, given that the institution is located in the Western Cape. The institution does however attract students from across SA, with more than 35% of the student population originating from outside the Western Cape.

As mentioned in section 3.3.1, total enrolments have increased significantly, which have primarily been influenced by the increased participation of African and Coloured students. Figure 3.1 below reflects student enrolments by race for 2017. As can be seen in Figure 3.1, 18.94% of the total enrolments were African and 17.58% Coloured. Enrolments of African students are however much higher at postgraduate level, namely at 31.19% compared to 13% at undergraduate level. As will be discussed in section 3.3.3, this could be attributed to the historic language policy. African and Coloured students often prefer to study in English, rather than in Afrikaans which, until 2016, has been the primary language of instruction at the institution. The introduction of English as medium of instruction has been faster in postgraduate programs, which could in part explain the higher level of enrolments of African students at postgraduate level. African student enrolments are, however, much higher than in 1990 when only five African undergraduate and 44 African postgraduate students were enrolled (as shown in Table 3.2). Access for Coloured students has also been broadened. In 2017, 17.58% of student enrolments were Coloured, with 20.45% Coloured student enrolments at undergraduate level and 14.64% at postgraduate level respectively. This is significantly higher than the 4.9% of Coloured students that were enrolled at the institution in 1990.



	Asian	African	Colored	Indian	White	Witheld
Undergraduate	0.00%	13.00%	20.45%	3.09%	63.38%	0.05%
Postgraduate	0.01%	31.19%	14.64%	3.13%	50.59%	0.14%
Total enrolments	0.12%	18.94%	17.58%	2.99%	60.29%	0.08%

Figure 3.1: Proportion of student enrolment by race, 2017

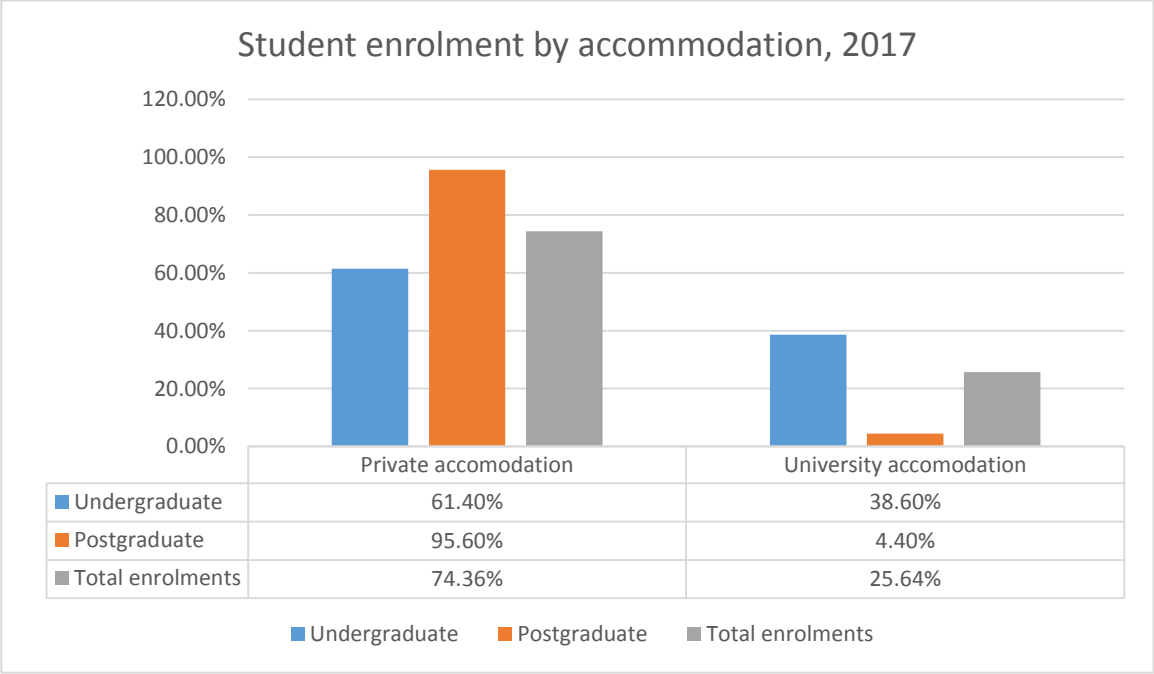
Source: SU Division of Information Governance, 2018d

In spite of broadened access to African and Coloured students, the student population remains predominantly White, with White students forming 60.29% of the total student enrolment. The proportions reflected in Figure 3.1 differ significantly from the national figures given in Chapter 2 under section 2.4.2.1. White student enrolments nationally made up approximately 10%, compared to the 60.29% at SU. When enrolments at SU are compared to national enrolment, it indicates that SU has much lower enrolment for African students in particular. National enrolments of African students were at 80%, compared to just less that 19% at SU. The proportion of Coloured student enrolments at SU are slightly higher than at national level, namely 17.58%, compared to national enrolments of 10%. The proportion of Indian students is similar to the national proportion of approximately 3%.

Broadened access to African and Coloured students has also diversified the institution in terms of the socio-economic background of students. Socio-economic background within the South African context often correlates with race, and at SU this is certainly the case. In a study on enrolment trends at SU, Nel, Kistner and Van der Merwe (2013) found significant differences in socio-economic status for the different racial groups amongst first-year students. The study found that 85% of White students came from privileged schools, compared to 45%–55% of their African and Coloured counterparts. A similar trend was found regarding the educational qualifications of parents. While only 34% of the White students were FGS, 71% of the Coloured students and 63% of the African students were FGS. These findings suggest that many African and Coloured students entering the institution are not from

similar middle or high income backgrounds as those of White students. While the findings from the study by Nel et al. (2013) suggest that there has been an increase in enrolment of students from lower socio-economic backgrounds at the institution, a study done in 2010 found that SU still had a lower enrolment rate of students from lower socio-economic background than the other six universities participating in the study (Letseka, Breier & Visser, 2010).

While gross enrolments have increased, the University has been unable to meet the demand for university accommodation. Figure 3.2 below shows that most students live privately, with only 25.64% of students being housed in university accommodation. Undergraduate students take up the majority of university accommodation, but this remains low - as only 38,60% of undergraduate students live in university accommodation. Most students therefore live privately and some even commute to and from Stellenbosch on a daily basis. The university experience of students living privately, especially those commuting, has consequently been of concern to the institution (SU, 2009).



	Private accomodation	University accomodation
Undergraduate	61.40%	38.60%
Postgraduate	95.60%	4.40%
Total enrolments	74.36%	25.64%

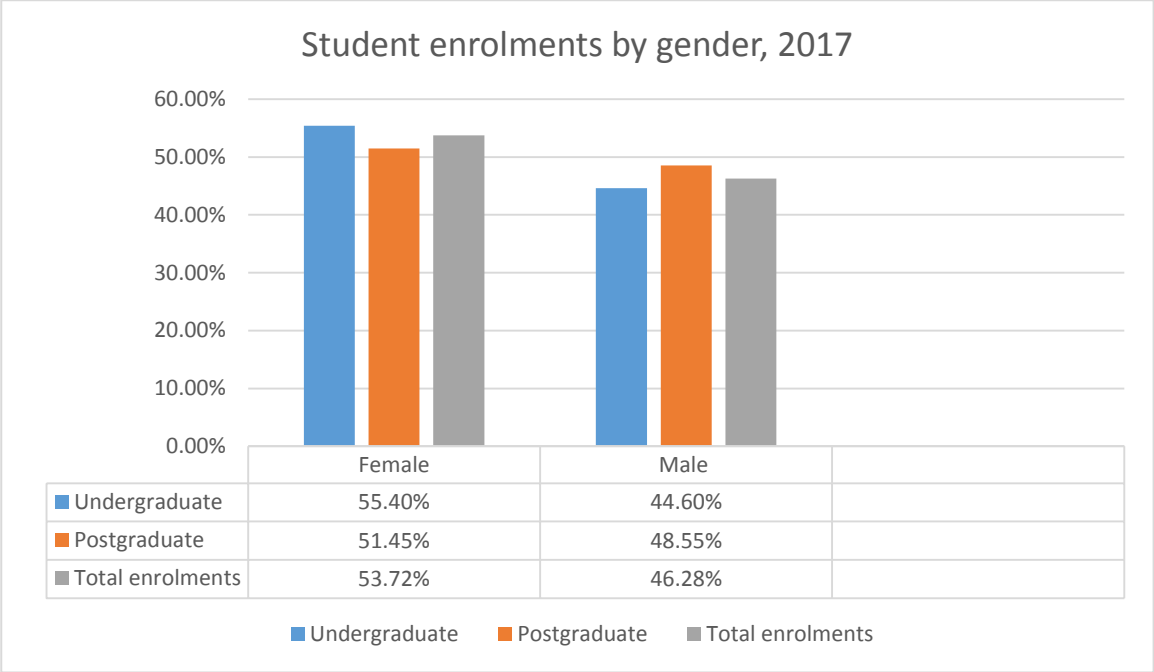
Figure 3.2: Student enrolment by accommodation, 2017

Source: SU Division of Information Governance, 2018f

To improve the university experience of private students, the Res Ed cluster initiative was approved by the rector's management team in 2007 (SU, 2007). This cluster initiative grouped students from university residential spaces with those living privately into clusters. Eight clusters have been formed,

each comprising of five to seven university residences and PSOs[1]. A primary focus of the Res Ed clusters has been to integrate students living privately into the learning and living communities on campus (SU, 2009) through, for example, making the Be Well Peer Mentoring Program available to first-year students living privately.

The current student profile also reflects gender diversity. Figure 3.3 shows the enrolment by gender in 2017. As seen from Figure 3.3, female enrolments are slightly higher than male enrolments. Total enrolments for 2017 reflect female enrolments of 53.72% and male enrolments of 46.28% respectively. Enrolments are similar at undergraduate and postgraduate level, with 55.40% female enrolments at undergraduate level and 51.45% female enrolments at postgraduate level.



	Female	Male	
Undergraduate	55.40%	44.60%	
Postgraduate	51.45%	48.55%	
Total enrolments	53.72%	46.28%	

Figure 3.3: Student enrolment by gender, 2017
Source: SU Division of Information Governance, 2018e

3.3.3. Language

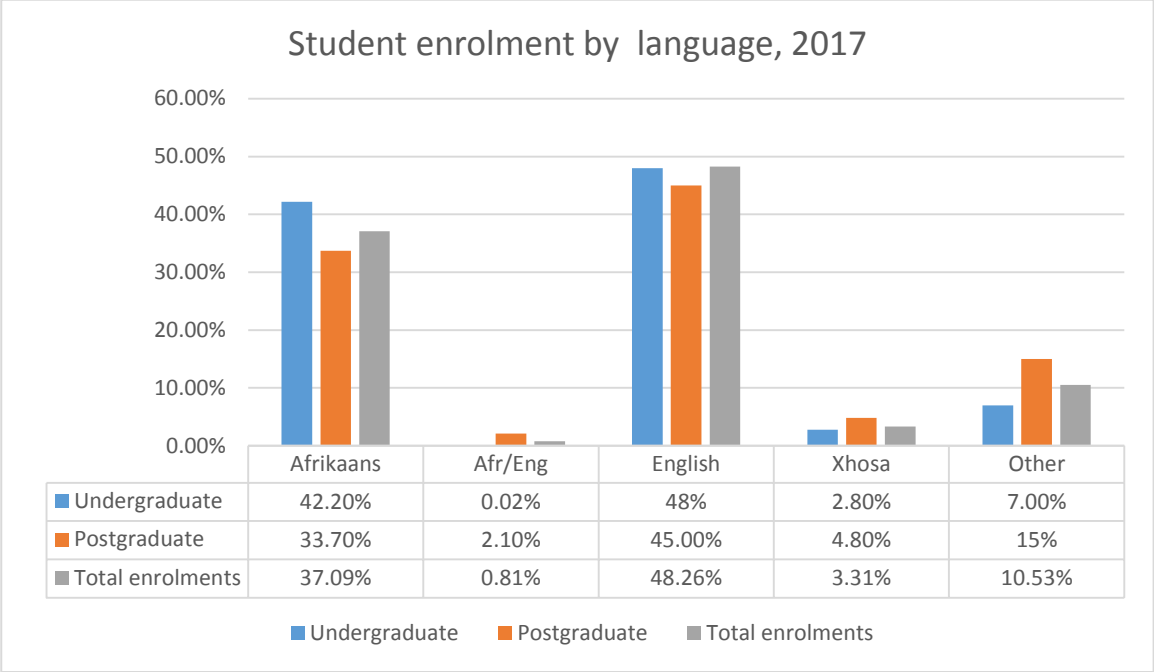
For more than ten years, the medium of instruction at SU has been a controversial and fiercely debated issue. Historically the institution has promoted Afrikaans as an academic language, even post-apartheid. As alluded to in section 3.2, the University was the first Afrikaans-medium HEI established in SA and, in the political climate at the time, it was purposefully established to promote the idea of Afrikanerdom. Language therefore holds historical significance for the University (Baumert, 2014)

[1] A PSO is a private student organization. Students living privately are assigned to a PSO, based on their geographical location. The PSO, similar to the University residence environment, has a leadership structure that includes student leaders and mentors. Private or commuter students are commonly referred to as PSO students on campus.

and could therefore be linked to the identity of the institution. Sehoole (2006: 6) argues that "for the Afrikaner, language became a symbol of the struggle for national identity". It would make sense for SU, as the first Afrikaans-medium university in SA, to be rooted in the history and identity of the Afrikaner and for the institution to promote Afrikaans as a medium of instruction. However, with the post-apartheid changes, one would have also expected English as a medium of instruction to be promoted quite aggressively in order to meet the needs of particularly African students.

In a study on enrolment trends at SU, Nel et al. (2013) made some interesting observations. The study found that, since 2006, the University has seen a decline in the enrolment of Afrikaans speaking students. This was not only due to more African students gaining access to the University, but was also caused by an increase in English speaking White and Coloured students. Gibbon (2010) partly tributes the increase in English Coloured students to the shrinking pool of Afrikaans speaking Coloured students in general in the country. This shrinking pool of Afrikaans speaking Coloured students is very relevant to SU. As an institution based in the Western Cape, where Afrikaans has been one of the main languages in the past, the University has been losing out as this pool has been shrinking. The University was also able to motivate the promotion of Afrikaans as the primary medium of instruction, as many Coloured students in the province considered Afrikaans as their first language. The shrinking pool of Afrikaans speaking Coloured students, together with increased enrolments of African and English speaking White students, has changed the language profile of the student population significantly.

Figure 3.4 outlines the student enrolment by home language in 2017. Afrikaans as home language has seen a decline to 37.9%, as more students identify with English as their first language (48.26%). English, Xhosa and other languages as home language have all increased, which reflects the diverse student population that has gained access to the institution. English in particular has shown a large increase and, to a lesser extent, Xhosa and other official languages. This could be attributed to the fact that, having attended English-medium schools, many African and Coloured students prefer to study in English, even if their home language is another language, and consequently identify English as their first language in an academic environment.



	Afrikaans	Afr/Eng	English	Xhosa	Other
Undergraduate	42.20%	0.02%	48%	2.80%	7.00%
Postgraduate	33.70%	2.10%	45.00%	4.80%	15%
Total enrolments	37.09%	0.81%	48.26%	3.31%	10.53%

Figure 3.4: Student enrolment by language, 2017

Source: SU Division of Information Governance, 2018g

The language policy has had implications for enrolment trends at the University (Bunting, 2002a; Gibbon, 2010). As mentioned in section 3.3.2, the proportion of African students remain much smaller than the national proportion, representing only 18.94% of the total enrolments at the institution. It must further be noted that the proportion of undergraduate African students is even smaller, namely 13%. Bunting (2002a) is of the opinion that the language policy has been the single largest contributing factor to the low enrolments of African students at SU, as Afrikaans at undergraduate level has remained a barrier to access. Gibbon (2010) further argues that Afrikaans as medium of instruction has not only impacted on enrolment trends, but it also contributes to student success being different for the different racial groups. White Afrikaans speaking students, she argues, have been advantaged by the University's language policy, with African students being the most disadvantaged.

Based on the observations of language trends at the institution, Nel et al., (2013: 92) argue that "in light of the increase in the feeder market of students of colour who regard English as their preferred language of tuition (and the concomitant drop in especially the Coloured Afrikaans-speaking market), more programs should be made available to accommodate these students in English for the full duration of the study program". This recommendation, at the time, challenged the official language policy that promoted Afrikaans as medium of instruction, and while debate on the langue policy had been occurring for some time, the debate intensified in 2015.

In 2015 students took to the streets to show their dissatisfaction with Afrikaans as medium of instruction. Throughout the year students protested against the use of Afrikaans as medium of instruction. This culminated in the university management proposing to change the language policy and to adopt English as the primary language of instruction (Liebenberg & Van der Walt, 2015). This proposal caused much distress in various Afrikaans groupings, such as the Afrikaans civic movement Solidarity (who holds the University accountable to its promise to be an institution that promotes Afrikaans) and the Convocation of the University (Mortlock, 2016). Those opposing a shift to English even cited the country's constitution in their argument, arguing that the Constitution guarantees all South Africans education in their mother tongue. They argued that they therefore have a right to Afrikaans as medium of instruction and, if the language policy changes, Afrikaans should at least have equal status to English (Liebenberg & Van der Walt, 2015).

Given all the debate and reactions on the language policy, the proposed policy was not passed in 2015. It was reviewed in 2016 and various stakeholders were able to provide inputs regarding policy adjustments. In June 2016 a new language policy was approved. The new language policy aims to promote Afrikaans, English and Xhosa at the institution, as these are the three official languages used in the Western Cape. The policy is based on the principles that the University's medium of instruction must promote access and academic success for all students. The policy continues to make provision for students who prefer to study in Afrikaans, while also improving access to education for students who are proficient in English only (SU, 2016b). The decision to invest in English as a second medium of instruction has been welcomed by many African and Coloured students who prefer to study in English, as the medium of instruction has held some challenges for many of them.

3.3.4. Success rates

SU is one of the country's top performing institutions academically (Gibbon, 2010). The University prides itself on its good academic record and continuously strives towards academic excellence. However, Gibbon (2010) argues that both enrolments and graduates remain overwhelmingly White at the University, and that this is the main reason for its current success rates being higher than that of most other HEIs in South Africa. White students are still being advantaged over other racial groups in terms of good secondary schooling, parental/family level of education and parental incomes. Notwithstanding the excellent academic instruction at the institution, Gibbon (2010) further states that White students often enter with a solid education and social platform that significantly contributes to their success at SU.

Table 3.3 outlines the throughput rates for 2010-2014 and offers support for Gibbon's argument. Graduation in regulation time for three year degrees is much higher for White students, than for other

population groups with more than 50% of White students graduating in regulation time. Graduation in regulation time for White students has also increased since 2012. In contrast, graduation in regulation time for African and Coloured students has been fluctuating and is much lower than that of their White counterparts. Graduation in regulation time of Indian students is also lower than those of White students. The low enrolment figures of Indian students at the institution could, however, influence these figures.

Table 3.3: SU throughput rates (%) for three-year degrees per race group, 2010 – 2014

Population group	2010	2011	2012	2013	2014
Completion in 3 years					
White	47.76%	47.36%	53.06%	51.28%	52.69%
Coloured	31.87%	32.24%	36.05%	34.43%	36.07%
African	31.43%	24.79%	35.80%	34.09%	32.87%
Indian	15.63%	29.63%	14.29%	29.03%	37.74%
Total	**44.67%**	**44.05%**	**50.40%**	**47.22%**	**48.02%**
Completion in 4 years					
White	44.53%	42.57%	45.77%	47.39%	48.29%
Coloured	35.38%	38.80%	39.91%	37.22%	38.17%
African	24.76%	23.93%	39.51%	31.82%	35.19%
Indian	28.13%	33.33%	14.29%	35.48%	41.51%
Total	**42.36%**	**41.11%**	**44.78%**	**44.60%**	**45.41%**
Completion in 5 years					
White	20.28%	20.19%	21.21%	22.49%	
Coloured	16.67%	18.31%	23.61%	19.75%	
African	13.33%	14.53%	17.28%	15.34%	
Indian	28.13%	7.41%	28.57%	22.58%	
Total	**19.63%**	**19.54%**	**21.35%**	**21.57%**	
Grand Total	**72.01%**	**70.21%**	**77.04%**	**73.77%**	

Source: Division Information Governance, 2018h

Graduation rates for four-year degrees are given in Table 3.4 below. While graduation rates for African and Coloured students are better, they still reflect lower graduation in regulation time than White students. Graduation rates in regulation time for White students have again consistently increased, reaching almost 60% in 2014, while four-year degree graduation rates for African, Coloured and Indian students have been fluctuating. In 2014 graduation in regulation time was 34.64% for Coloured students, 28.67% for African students and 36% for Indian students. From these graduation rates, reflected in Table 3.3 and Table 3.4, it can be concluded that African, Coloured and Indian students take longer to graduate than their White counterparts. As stated by Gibbon (2010) above, White students gaining access to the University are from more advantaged educational and socio-economic backgrounds, a factor which certainly contributes to their higher success rates at the institution. In contrast, the University has been enrolling more first-generation African and Coloured

students who often come from less advantaged backgrounds and who enter the institution less prepared during their first year of study. The University enrols a very small group of Indian students, and given the much higher enrolment rates of African and Coloured students, the success rates of African and Coloured students has been a major concern. This is part of the transformation and developmental agenda of HE in South Africa.

Table 3.4: SU throughput rates (%) for four-year degrees per race group, 2010-2014

Population group	2010	2011	2012	2013	2014
Completion in 4 years					
White	53.20%	53.06%	53.62%	58.34%	58.46%
Coloured	29.83%	38.86%	40.91%	32.52%	34.64%
African	41.11%	35.42%	30.93%	36.09%	28.67%
Indian	35.71%	26.67%	45.00%	23.08%	36.00%
Total	**49.25%**	**49.75%**	**50.23%**	**51.13%**	**50.23%**
Completion in 5 years					
White	23.40%	23.29%	21.75%	21.13%	
Coloured	18.78%	18.29%	22.73%	18.70%	
African	18.89%	14.58%	21.65%	10.53%	
Indian	42.86%	20.00%	35.00%	30.77%	
Total	**22.07%**	**22.01%**	**22.07%**	**19.89%**	
Completion in 6 years					
White	17.44%	19.27%	17.18%		
Coloured	11.05%	14.86%	14.29%		
African	14.44%	10.42%	16.49%		
Indian	14.29%	20.00%	5.00%		
Total	**16.39%**	**18.10%**	**16.59%**		
Grand Total	**73.60%**	**70.55%**	**75.20%**		

Source: Division Information Governance, 2018i

Lower graduation rates in regulation time for African and Coloured students are likely influenced by their performance during their first year. Table 3.5 shows the modules passed during the first year, i.e. success rates, for first-year students from 2012 to 2014. As seen, the success rate for White students has been consistent at around 85%, which is higher than the average. In contrast, the pass rate for African students has fluctuated. African students had an average success rate of 77.3% for the period 2010 to 2013, while Coloured students were at 79.3%. White students therefore showed a higher success rate in their first-year modules, while African students have the lowest success rate.

Table 3.5: SU success rates of first time entering first-year students per race group, 2012-2016

	2012	2013	2014	2015	2016	Average
African	82.3%	76.8%	77.3%	74.3%	75.8%	77.3%
Coloured	82.7%	80.3%	78.0%	76.8%	78.5%	79.3%
Indian	85.4%	83.6%	81.6%	80.8%	80.3%	82.3%
White	85.6%	86.6%	86.4%	83.8%	86.7%	85.8%
Average	84.0%	81.8%	80.8%	78.9%	80.3%	

Source: Division Information Governance, 2018j

Academic success during the first year has a cumulative effect on future success (Scott, 2009; Tinto, 2012; Yorke & Longden, 2004). Success during the first year increases the likelihood of success in subsequent years, while failure undermines future success (Tinto, 2012). Lower success rates of African and Coloured students during the first year are therefore likely to contribute to poorer graduation in regulation time, as reflected above. Understanding how African and Coloured students adjust during their first year is therefore important so that interventions can be offered in line with their needs.

3.3.5. Adjustment of African and Coloured students

As will be discussed in Chapter 4 under section 4.3.2, adjustment difficulties during the first year can affect different aspects of the first-year experience, such as student wellness, academic performance and attrition. Fischer (2007) warns against assuming that adjustment is the same for all students. Some students might experience intense adjustment challenges, while others navigate adjusting to the new environment with more ease. The nature of the adjustment challenges could also differ. Fischer (2007) underscores that minority students in particular could struggle to adjust to HE. In the context of SU, many African and Coloured students gaining access are FGS, which hold significant implications for their adjustment. In addition to the adjustment challenges faced by FGS globally (discussed in Chapter 4 under section 4.3.3), one needs to be sensitive to the adjustment experiences of African and Coloured students enrolled at the institution who could struggle with experiences of being a minority at the institution. This does not disregard the fact that most students encounter adjustment challenges during their first year, but it rather adds another dimension to the social adjustment of these students.

Larger numbers of students from low socio-economic backgrounds have gained access to the institution. Their socio-economic background could contribute to these students being underprepared

for social adjustment to university life (Cross & Carpenter, 2009; Sennnet, Finchilescu, Gibson & Strauss, 2010; Trow, 2000), and possibly, to their struggle to adjust to the institutional culture that has historically catered for students from advantaged backgrounds. In the study on student success cited earlier, Gibbon (2010) found that from the sample of students at SU, only 19% of the participating students were from low SES backgrounds. This implies a minority group and feelings of being a minority could transcend race to include class. The study further found that 53% of the students who had dropped out were from low SES backgrounds (Gibbon, 2010). This causes concern, as it implies that 53% of the 19% that were from lower socio-economic backgrounds had dropped out. The important role that graduate output amongst students from lower socio-economic backgrounds play in the social and economic development of the country was highlighted earlier. The high drop-out rate amongst students from low socio-economic backgrounds at the institution is therefore of concern and it again underscores the importance of support initiatives for these students.

3.4. STUDENT SUPPORT

The *Strategic Framework for the Turn of the Century and beyond* (SU, 2001) has a strong emphasis on student support. The University's aim since 2001 has not only been to accelerate access to African and Coloured students, but also to support these students while enrolled at the institution. The University offers extensive support to students through a range of policies and practices that are in place and a number of centres that offer various types of support. These centres include the Centre for Prospective Students, the Centre for Student Counselling and Development, the Centre for Student Communities, the Centre for Teaching and Learning and the Language Centre (Gibbon, 2010). Faculties work closely together with these centres and each faculty has a student support coordinator, serving as a direct link between the students and the support structures available.

An extensive range of support to first-year students in particular is offered. The University's institutional plan for 2012-2016 states that "it is extremely important that the gap between success levels of the racial groups be bridged" (SU, 2012:7). For this purpose, the institution has put in place a variety of support programs - focussed specifically on first-year students - such as the First Year Academy, the Res Ed cluster initiative (SU, 2015) and the Be Well Peer Mentoring Program (Botha & Cilliers, 2012; Du Plessis, 2015). It is important to note that the support is available to all students in need of the specific services and does not discriminate on the basis of background or level of preparedness. There are, for example, no specific programs only for FGS.

Given the multifaceted adjustments that first-year students need to manage, the Be Well Peer Mentoring Program has been implemented to assist students with their adjustment during the first year. This peer mentoring program aims to provide extensive support to first-year students throughout the year. Mentors are assigned as student advisors to first-year students and are trained in order to

advise first-year students on how and where to access the various support structures available. This section will give some context to this program by outlining its goals, stakeholders, target population and implementation strategies.

3.4.1. Be Well Peer Mentoring Program

Peer mentoring for first-year students has grown in popularity at HEIs globally (see Chapter 4, section 4.4) and is generally implemented to assist first-year students with their adjustment as a means of improving retention. The peer mentoring program at SU is, however, a unique one. The program goes beyond the traditional focus on facilitating the adjustment of first-year students. It uses wellness initiatives to not only facilitate the adjustment of participating first-year students but to also optimize the wellness of both first-year students and mentors. The program is called the Be Well Peer Mentoring Program - a name that captures its strong focus on holistic wellness. One of the primary goals of the program is to positively contribute to the adjustment of participating first-year students through the optimisation of holistic wellness (Botha & Cilliers, 2012; Du Plessis, 2015).

In this program, first-year students (mentees) are assigned to senior students (mentors) who are trained to facilitate formalised peer-assisted wellness sessions (Botha & Cilliers, 2012). The program is founded on the wellness model of Hettler (1980, 1984). Hettler (1980: 77) defines wellness as "an active process through which the individual becomes aware of and makes choices toward a more successful existence". He argues that wellness promotion can lead to increased wellness of students and that it has the potential to increase student retention. Given the potential of wellness programs at HEIs, SU has added the wellness dimension to the peer mentoring program. Based on the wellness domains of Hettler's model, the program focusses on six wellness domains, as illustrated in Figure 3.5 below. Students are sensitised to each wellness domain and how they are all interrelated. Holistic wellness therefore requires attention to all wellness domains.

Figure 3.5: Wellness domains of the Be Well Peer Mentoring Program

Source: Hettler, 1980

The following six wellness domains are included in the program:

- Physical wellness: refers to the degree one maintains physical health with regard to cardiovascular strength, preventing/detecting illness early and making healthy food choices (Hettler, 1980). Examples are: doing regular exercise and sport, following a healthy diet and avoiding drugs (Botha & Cilliers, 2012).

- Emotional wellness: refers to an awareness and acceptance of one's emotions, as well as positive self-regard (Hettler, 1980). Examples are: having a sense of humour, being happy with oneself and being aware of one's emotional needs (Botha & Cilliers, 2012).

- Intellectual wellness: refers to the degree to which a person engages his/her mind in creative, stimulating mental activities (Hettler, 1980). Examples are: spending time on studies, setting realistic goals and engaging in intellectually stimulating activities (Botha & Cilliers, 2012).

- Social wellness: emphasises the interdependence that one has with others and the need to socialise with others. It also refers to the extent to which one contributes to the welfare of those in the community (Hettler, 1980). Examples are: spending time with friends, perception of one's own social self-confidence and level of ease interacting within a group (Botha & Cilliers, 2012):

- Occupational wellness: refers to the satisfaction gained from work and the extent to which the individual is enriched by his/her work (Hettler, 1980). Examples include certainty about

the career choice a student has made, the extent to which the student's degree links to future career plans and the level of enjoyment of the course (Botha & Cilliers, 2012).

- Spiritual wellness: refers to the ongoing process by which mankind seeks meaning and purpose in human existence (Hettler, 1980). Examples include time spent on religious activities, and having a purpose in life (Botha & Cilliers, 2012).

The Be Well Peer Mentoring Program takes a developmental approach to facilitating adjustment and wellness. The program is available to all first-year students, and does not adopt a deficit approach which tends to focus only on students in need of support or those who are struggling to adjust. Instead, it adopts a potential releasing approach (Botha & Cilliers, 2012; Du Plessis, 2015), and in doing so it does not marginalise underprepared students. Its developmental approach aims to facilitate holistic wellness and successful adjustment through the optimization of the potential of all students (Du Plessis, 2015).

3.4.1.1. Purpose and goals of the peer mentoring program

The Be Well Peer Mentoring Program, in its current format, has been operational since 2013. The program - according to two of its founders, Botha and Cilliers (2012) - aims to optimize the adjustment of participating first-year students through the optimization of wellness. According to the current program coordinator, J Petersen, promoting holistic wellness amongst first-year students is therefore an important goal of the program (personal communication, 21 June 2018). In the context of this program, formalised sessions on wellness, which are facilitated by mentors, are included with the aim of contributing positively to the holistic wellness and adjustment of first-year students (Botha & Cilliers; 2012; Du Plessis, 2015). First-year students are also supported by an individualized wellness website with additional resources to enhance their wellness such as assessments, ebooks, audiobooks, e-workshops and journals (Du Plessis, 2015). While this study focusssed on adjustment, there are other program benefits in terms of holistic wellness. Du Plessis (2015) argues that a focus on wellness has been proven to enhance student success, to promote the development of graduate attributes and to lighten the burden on support services on campus.

In addition to the advisory or educational element of this program, it is my contention that this program offers a platform for student engagement. Kuh (2005) and Tinto (2014) argue that HEIs need to play an intentional role in creating opportunities for student engagement if they intend to increase the success rate of all students gaining access to HE. The BeWell Peer Mentoring Program could therefore hold great benefit to the students. However, the program's effectiveness has not yet been ascertained through a systematic and scientific investigation - and that is what this study intends to do.

3.4.1.2. Key stakeholders and funding of the program

The program is offered by the Centre for Student Communities (CSC), which is part of the Student Affairs Division of SU. While SU has five campuses, this particular program is offered to students on the main campus in Stellenbosch and at the Tygerberg medical campus. Given the overlapping of this program with another program offered at the Tygerberg campus (the MenTut program[2]), the scope of this study was limited to the Stellenbosch campus. The program is offered to all registered first-year students on the main campus. Students living in university accommodation, as well as those living in and beyond the borders of Stellenbosch, can all potentially benefit from this program. However, it requires the support of various role-players, including the residential heads and private student organization (PSO) coordinators (R Engelbrecht, personal communication, 28 March 2018).

3.4.1.3. Target population of the program

Upon arrival on campus during the welcoming period (prior to registration for the year), all first-year students are assigned to a mentor. This is done within the residence or private student organization (PSO) environment. According to the program coordinator, the assignment of mentees is done under the supervision of the head mentor from the specific environment. The program does not exclude any student from participation. However, not all students equally participate in the program. Some opt not to participate, some only participate during the welcoming period, while others participate for a longer period (J Petersen, personal communication, 28 March 2018).

3.4.1.4. Individuals responsible for implementation of the program

Figure 3.6 illustrates the levels of involvement from those responsible for the implementation of the program. As shown, two staff members from the CSC environment are involved in the implementation of the program: the program coordinator and the residential head/PSO coordinator[3] of the specific environment. While the program coordinator generally oversees the program and primarily guides the head mentors (J Petersen, personal communication, 28 March 2018), the residential heads or PSO coordinators are required to be closely involved with the practical implementation of the program in their environments. The role of the residential heads/PSO coordinators is clearly stipulated in their annual work agreements. The 2017 work agreement, as in

[2] The MenTut program is a peer academic support program offered in the Faculty of Medicine and Health Sciences (Tygerberg campus). Senior students (a.k.a. MenTuts) support first-year students with the academic transition from high school to university. While the program focusses on academic support, psycho-social support and guidance on holistic adjustment issues are also provided by these senior students. All registered first-year students at the Tygerberg campus have access to the program.

[3] A PSO coordinator manages the PSO environment, in collaboration with the PSO leadership. PSO coordinators are employed by CSC.

previous years, clearly states the successful management of the peer mentor program within the residence/private organization as one of their duties (CSC, 2017a). The work agreement does not further specify the nature of involvement, and my experience of the program suggests that the level and type of involvement of the residential heads/PSO coordinators varies and is interpreted in different ways.

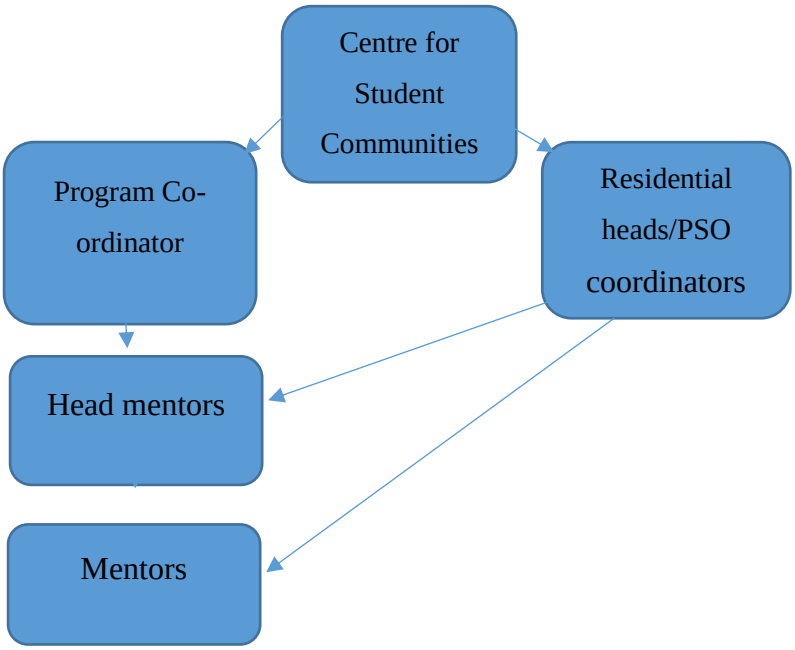


Figure 3.6: Role-players involved in the implementation of the peer-mentoring program

The head mentors play a key role in the implementation of the program. Each residence and PSO has a head mentor, and the program coordinator works closely with them and relies on them to guide their mentors and to transfer the knowledge that they acquire to the mentors (J Petersen, personal communication, 28 March 2018). Given the limited contact the program coordinator has with the mentors, who are the ones interacting with the students, the role of the head mentor is a vital one. The selection and training of head mentors, as well as those of the mentors, therefore seem critical to the successful implementation of the program.

3.4.1.5. Selection and training of mentors

The CSC has clear guidelines, drafted in writing, in place for the selection of head mentors and mentors (CSC, 2017b; 2017c; 2017d). These documents are circulated to all residential heads and PSO coordinators. They do, however, only serve as guidelines and discretion can be applied in the application thereof. Given the important role of the head mentor, an additional document with guidelines on the selection of the head mentor has been drafted (R Engelbrecht, personal communication, 28 March 2018). The selection of head mentors and mentors takes place during the final term of the preceding year. Once head mentors and mentors have been selected, they are trained by the CSC.

Training takes place twice: it is provided shortly after their selection (in the final term of the preceding year of their mentoring role), followed by another training session just before the arrival of the first-year students the following year. The first training session focusses on their role and duties as head mentor or mentor, as well as on the implementation of the wellness component of the peer mentoring program. The second training session focusses more on all the available resources that first-year students can access. The training is followed by two forums with the head mentors per term, where additional training (as needed) is provided. These forums are also a platform for the program coordinator to 'check-in' with the head mentors (J Petersen, personal communication, 28 March 2018). It is important to note that these forums include the head mentors only on the assumption that the head mentors are trained to, in turn, train the mentors. There are a total of 40 head mentors on the Stellenbosch main campus who each, generally, supervises 7-12 mentors (R Engelbrecht, J Petersen, personal communication, 28 March 2018).

3.4.1.6. Implementation of the program

The peer mentoring takes place between the mentor and the mentee (first-year student). Mentors are required to meet with their mentees, either on a one-on-one basis or in a group. In addition to providing the psycho-social support, guidance and information that is traditionally offered by peer mentoring programs, mentors are also required to facilitate at least six group sessions during the year, exploring the different wellness domains. To assist them in facilitating these discussions, mentors are provided with wellness cards. Six wellness cards, one for each wellness dimension, is given to mentors. The cards contain definitions of wellness, as well as suggested activities to help mentors guide their mentees in discussion about the various aspects of wellness, and "to help coach their mentees to adopt a lifestyle that promotes health and wellbeing" (Du Plessis, 2015: 3) (see Figure 3.7 for an example of a wellness card). Figure 3.7 for example offers questions pertaining to physical wellness. It is compulsory for mentors to facilitate the six wellness sessions. No further specifications of their interactions with the first-year students are given.

Figure 3.7: Example of the Be Well program cards for mentors: physical wellness

Source: CSC, 2018e

Ultimately, the mentors are responsible for the practical implementation of the program with their mentees (first-year students) under the guidance of the head mentor and residential head/PSO coordinator. This implementation process is susceptible to many challenges. Boruch and Gomez (1977) highlight programs that are delivered at an individual level as a major potential challenge to successful program implementation, which is the case for the Be Well Peer Mentoring Program. The implementation of programs does not always happen as planned (Mertens and McLaughlin, 2004), leaving them susceptible to failure and not reaching their intended outcomes, as mentors approach their responsibilities differently and they may invest different amounts of time into mentoring their mentees. Monitoring and evaluation of these programs could therefore prove to be very significant to the success of such programs.

3.4.1.7. Monitoring and evaluation of the program

Although the peer mentoring program has been running since 2013, and has a tracking system (monitoring) in place, the program's effectiveness has not yet been ascertained through a systematic and scientific investigation. The monitoring is done electronically. Head mentors, mentors and participating first-year students can all log onto the BeWell portal to record their individual/group sessions or to write a reflection[4]. Logging is mandatory for head mentors and optional for mentors and participating first-year students (J Petersen, personal communication, 21 June 2018). One of the reasons for the monitoring is for funding purposes, as the program is funded by an external source (R

[4] The reflective questions are about factors such as how mentors experienced the training, if they grew in their mentor role, if they felt well prepared etc. (CSC, 2017e).

Engelbrecht, personal communication, 28 March 2018). Against this background to the peer mentoring program, details on how this study was done will be given in Chapter 5.

3.5. CONCLUSION

SU is a historically White university with strong roots in the Afrikaner 'volk' and the Afrikaans language. These foundations have made it difficult for the institution to adjust to the changing HE landscape post-apartheid. Despite being slow to transform, the University has made good progress in the last decade. Broadened access to African and Coloured students has been accelerated, which has resulted in the diversification of the student population in terms of race, class and language. The broadened access to African and Coloured students, who are often FGS and FGS from low-income backgrounds, has left the University with the dual challenge of access and success. The University prides itself in its excellent academic record. However, similar to the national trend, the success rates of White students are still higher than that of their African and Coloured counterparts. Lower success rates amongst African and Coloured students are addressed through various support initiatives, without marginalizing any particular group of students. Given the significance of the first-year experience, the University offers extensive support to first-year students in particular. The Be Well Peer Mentoring Program is an innovative peer mentoring program offered to all first-year students. In addition to the psycho-social support commonly offered by peer mentoring programs, the Be Well Peer Mentoring Program has a unique wellness dimension aimed at optimizing the holistic wellness and adjustment of participating first-year students. However, the outcomes have not been ascertained through research on the program's outcomes, hence the need for this study.

CHAPTER 4

THE SIGNIFICANCE OF THE FIRST-YEAR

4.1. INTRODUCTION

As alluded to in previous chapters, broadened access has led to a decline in student persistence, throughput and graduation rates, as more students gaining access to higher education (HE) present underprepared (Cross & Carpenter; 2009; Teichler, 2001, 1998; Trow, 2000). Consequently, student success remains a high priority for higher education institutions (HEIs) globally. The transition from school to the HE environment is intense and requires multiple adjustments. Given the significance of the first year and high attrition rates in the first year, support during the first year and a focus on the first-year experience (FYE)[1] are particularly important to address declining student success (Chaote, 2003; Kuh, Kinzie, Schuh & Whitt, 2010; Van Schalkwyk, Van der Merwe & Leibowitz, 2009). Developing first-year initiatives that are responsive to a diversity of students, including first-generation students (FGS), is paramount to improved success rates, yet it remains a global challenge (Upcraft, Gardner & Barefoot, 2005). Peer mentoring programs in HE is regarded as an effective intervention that contributes to the retention and success of students - one that can play a powerful role in supporting underprepared students during the first year of study. Research has found that peer mentoring programs have the potential to improve retention and academic performance. They offer opportunity for academic and social engagement and in doing so create opportunity to take access of FGS to success.

In this chapter, the significance of support initiatives, such as peer mentoring programs, for the first-year student in particular, will be discussed. This chapter first discusses the significance of the first year, and elaborates on how the major transition from school to university continues to influence what happens during the first year. Given the significance of adjustment during the first year, this is then explored - with an emphasis on the factors contributing to adjustment, the significance of adjustment and the adjustment of FGS in particular. Peer mentoring as an effective intervention during the first-year is subsequently discussed, with finally an overview of the theoretical model of the study, Tinto's theory on success and retention.

4.2. A FOCUS ON THE FIRST YEAR

Increased support during the first year and a focus on the FYE have been high on the agenda of HEIs globally (Gardner, Upcraft & Barefoot, 2005; Kuh et al., 2010; Van Schalkwyk et al., 2009). This

[1] The FYE is the sum of all experiences a student has in the first year and includes curricular and co-curricular activities.

has been influenced by numerous factors. Firstly, first-year attrition remains a global challenge (Barefoot, 2000; Clarke, 2005; Harvey et al., 2006; Tinto, 2012; Yorke & Longden, 2004). Secondly, academic success during the first year has a cumulative effect on future success. Thirdly, the increase in student diversity has resulted in an increased need for HEIs to support a more diverse student population who have different experiences (Cross, 1980; Harvey et al., 2006; Jones, 2005) and finally, the transition from school to a HEI is a challenging one (Collings, Swanson & Watkins, 2014; Conley, Travers & Bryant; 2013; Grant-Vallone & Ensher, 2000; Scott, 2009; Van Schalkwyk et al., 2009); arguably the most challenging transitional phase of the HE experience (Van Schalkwyk et al., 2009; Barefoot, 2000). This section briefly explores the above-mentioned factors that influence the strong emphasis HEIs have placed on the first year, while simultaneously highlighting the significance of the first year.

4.2.1. High attrition rates during the first year

Attrition is a complex phenomenon, with many root causes (Barefoot, 2000; Crissman Ishler & Upcraft, 2005; Harvey et al., 2006; Tinto, 2012) and it is often the result of a combination of factors that include student characteristics, institution-related factors and external forces (Harvey et al., 2006; Kuh, Cruce, Shoup, Kinzie & Gonyea, 2008; Tinto, 1993). First-year attrition remains a global challenge (Barefoot, 2000; Clarke, 2005; Green, Cashmore, Scott & Narayanan, 2009; Harvey et al., 2006; Scott, 2009, Tinto, 2012; Van Schalkwyk et al., 2009; Yorke & Longden, 2004), as attrition remains the highest during the first year (Green et al., 2009; Scott, 2009; Tinto, 2012; Upcraft et al., 2005; Yorke & Longden, 2004). High attrition rates amongst FGS, especially during the first year, remain a concern (Ishitani, 2003). FGS often face unique challenges that put them at a higher risk of attrition (Ishitani, 2003), with FGS from low income backgrounds facing the biggest challenges and the highest risk of attrition (Davies, 2010; Harvey et al., 2006; Tinto, 2012, 1993). These high attrition rates make it crucial to support students during the first year, as high attrition rates during the first year directly affect throughput and graduation rates. Similarly, academic performance during the first year also have a cumulative effect on subsequent years, which may affect graduation rates.

4.2.2. The cumulative effect of academic performance during the first year

Academic performance during the first year is significant for performance in subsequent years. Studies have found that academic performance during the first year predicts performance in subsequent years (Croen, Reichgott & Spencer, 1991; Alzahrani, Thomson, Bauman & Shuman, 2005). Croen et al. (1991) found that medical students' performance in the final examination during their first year predicted performance in their second and third year. Similarly, Alzahrani et al. (2005) found that performance in the final examinations of first-year dental health students predicted

graduation and license-to-practice success. These studies offer support to the argument that academic success during the first year has a cumulative effect on future success (Green et al., 2009; Scott, 2009; Tinto, 2012; Yorke & Longden, 2004). Success during the first year increases the likelihood of success in subsequent years, while failure in the first year undermines future success (Tinto, 2012). Success during the first year also provides some indication of future retention (Harvey et al., 2006; Tinto, 1993). Students who underperform academically in their first year is at higher risk of attrition, which in turn decreases their chances of success.

4.2.3. Diverse first year experiences

The FYE is not a single event but rather encompasses the sum of many parts during the first year and includes experiences both inside and outside the classroom (Barefoot, 2005). While many first-year students share similar experiences and challenges, the FYE is not a homogenous experience. It constitutes a multiplicity of experiences that are contingent on characteristics of the student and the institution. It is not static either, but shaped by societal and cultural factors at a given point in time (Harvey et al., 2006).

Traditionally HEIs enrolled students from upper and middle class income backgrounds who most often were second+-generation students. This has however changed in recent decades with increased enrolments of FGS. While each student is unique and the academic, social and cultural circumstances might differ from student to student, FGS do encounter challenges that may differ from their peers who are second+-generation students. The challenges faced by FGS are likely to influence their FYE and adjustment. HEIs, within this context, are required to be sensitive to the diverse experiences of first-year students and they need to offer initiatives that would alleviate the challenges experienced during the first year. The transition from school to university is one of the primary challenges faced during the first year.

4.2.4. A period of major transition and intense adjustment

The first year is very different from school. It is marked by one of the biggest transitions of the life experience. Students are expected to adjust to a new environment with new norms, new traditions, new rituals and a new language (Hunter, 2006), and this requires multiple academic, social, personal and institutional adjustments (Barefoot, 2000; Hunter, 2006; Tinto, 1993). Academically, students need to adjust to bigger volumes of academic work in a rigorous curriculum and they need to learn how to effectively manage their time (Conley et al., 2013). They also need to adjust to a system that is intellectually more demanding (Tinto, 1993). Socially, students often move away from home, they need to leave their friends and family behind and establish new relationships in a new environment (Conley et al., 2013; Davidowitz, 2009; Tao, Dong, Pratt, Hunsberger & Pancer, 2000). They need

to form new friendships while simultaneously having to separate from existing friends from school and home (Tinto, 1993; Credé & Niehorster, 2012). First-year students need to make career decisions (Credé & Niehorster, 2012) that will affect them for years to come. They need to adjust to a new institution and they need to become familiar with its operations. They also need to gain familiarity with the unfamiliar academic language (Lawrence, 2001).

Adjusting to this new environment can be tough (Hunter, 2006; Green et al., 2009). The new environment is accompanied by many new experiences, new demands and new challenges (Conley et al., 2013; Credé & Niehorster, 2012) which can be stressful. This may leave students feeling overwhelmed and they might struggle to adjust to their new environment (Conley et al., 2013), putting them at risk of leaving (Tinto, 1993). In recent years, the transition during the first year has become even more complex, as the move towards mass education has increased the diversity and range of the academic ability of students (Hargreaves, 1998; Elam, Stratton & Denis, 2007). Given the effect that adjustment difficulties have on educational outcomes, supporting students with adjustment during the first year has become a critical part of the support offered to first-year students.

4.3. ADJUSTMENT DURING THE FIRST YEAR

Adjusting to HE is a complex and challenging process that entails coping with a range of interpersonal, social, academic and institutional demands (Baker, 2004; Baker & Siryk, 2015; Credé & Niehorster, 2012). As mentioned earlier, the first-year experience is arguably the most intense and stressful adjustment period of HE (Paul & Brier, 2001). Given the nature and intensity of the changes during the first year, most students struggle with adjusting. For some students adjustment difficulties are temporary, while others find them overwhelming and they may even exit the institution (Tinto, 1993; DeBerard, Spielmans & Julka, 2004).

4.3.1. Defining adjustment

In this study, adjustment is conceptualized according to the definition of Baker and Siryk (2015) who define adjustment as a multi-dimensional process of interaction between an individual and his/her environment, whereby the individual develops effective coping strategies in order to adapt to the new environment and the various demands it brings. These demands vary in nature and degree and require a variety of coping responses (adjustments), which vary in effectiveness (Baker & Siryk, 1989). Baker and Siryk (2015) conceptualize adjustment along four adjustment domains: academic adjustment, social adjustment, personal-emotional adjustment and institutional adjustment (attachment).

Academic adjustment refers to success in coping with the various educational demands of the institution, while social adjustment refers to success in coping with the interpersonal-societal demands that the HE experience brings. Personal-emotional adjustment focusses on the student's

psychological state during the adjustment period and the extent to which a student might experience psychological distress or related somatic symptoms. Attachment reflects the student's degree of commitment to educational-institutional goals and in particular the level of attachment (bond) the student experiences towards the institution they are enrolled at (Baker & Siryk, 2015). The different adjustment domains are equally significant as they are all interrelated. Difficulties in one domain affect adjustment in other domains and the general experience of adjustment to campus. Attachment, for example, was found to positively correlate with general adjustment to the institution (Beyers & Goossens, 2002).

Given the significant effect that adjustment has on retention and on academic performance, it is viewed as an important outcome in its own right. This has resulted in many researchers examining the factors contributing to adjustment (Credé & Niehorster, 2012). Adjustment has been found to be influenced by personal, social and educational factors (Terenzini, Rendon, Upcraft, Millar, Allison, Gregg & Jalomo, 1994). Personal factors that influence adjustment include personality traits (Aspinwall & Taylor, 1992; Schnuck & Handal, 2011), self-esteem (Aspinwall & Taylor, 1992), motivation (Baker, 2004) and coping styles (Abdullah, Elias, Uli & Mahyuddin, 2010; Aspinwall & Taylor, 1992; Baker, 2002; Jantzer, 2006). Social factors that contribute to adjustment include the student-parent relationship (Lapsley, Rice & Shadid, 1989; Rice, Cole & Lapsley, 1990; Schnuck & Handal, 2011; Tau et al., 2000; Wintre and Yaffe, 2000) and social support from parents (Tau et al., 2000) and friends (Harvey et al., 2006; Hertel, 2002; Friedlander, Reid, Shupak & Cribbie, 2007). Educational factors such as entry-level grades and experiences in the HE environment (Abe, Talbot & Geelhoed, 1998; Credé & Niehorster, 2012; Grayson, 2003; Lizzio, 2006) have also been found to influence adjustment.

Experiences at the HE institution itself is a major educational factor that contributes to adjustment. The level of affiliation to the institution (institutional attachment) and the quality of relationships established (social adjustment) impact on the student's general adjustment (Lizzio, 2006). Students who are more involved on campus tend to show better adjustment (Tomlinson-Clarke & Clarke, 1994), as they are more likely to have formed meaningful relationships. The institutional culture at the HEI may also have an effect on the adjustment of students (Grayson, 2003; Lizzio, 2006). In addition, the campus environment may pose some challenges to the adjustment of students. Not all students will be equally affected by the environment (Grayson, 2003), and minority groups in particular may struggle to adjust if the environment is not being experienced as inclusive (Nora & Cabrera, 1996; Hurtado, Carter & Spuler, 1996), or if high levels of discrimination and prejudice are experienced (Nora & Cabrera, 1996).

DeBerard et al. (2004) argue that the new HE environment brings a multitude of social, academic and emotional stressors that have an influence on adjustment during the first year. However, these stressors can be mediated by good support; hence, the perceived level of support at the institution has been found to affect adjustment. Students who receive adequate support tend to adjust better (Martin, Swartz-Kulstad & Madson, 1999) as this mediates adjustment challenges (Bowman & Bowman, 1990). Support may come from parents/family, friends or support programs/services offered by the institution.

4.3.2. The significance of adjustment during the first year

Adjustment difficulties during the first year can affect different aspects of the first-year experience, such as the student's wellness, academic performance and attrition. Various studies have demonstrated that adjustment has a significant impact on a student's wellness (Clarke, 2005; Collings et al., 2014; Harvey et al., 2006; Van Schalkwyk et al., 2009). Beyers and Goossens (2002) found that high levels of adjustment could be associated with lower levels of loneliness and fewer depressive symptoms, and that well-adjusted students are more academically motivated. Students that adjust well tend to present with lower levels of stress and lower levels of emotional distress, while poor adjustment on the other hand could compromise optimal functioning by precipitating poor academic, social and personal functioning (Davidowitz & Schreiber, 2008). This suggests that students who adjust better are more likely to have higher levels of general wellness, compared to students with low levels of general adjustment. When students' wellness are compromised, they do not function optimally and this may result in poor academic performance during the first year, which increases their risk of drop-out.

Studies have also found that adjustment during the first year has an impact on academic performance (Credé & Niehorster, 2012; Grayson, 2003; Gerdes & Mallinckrodt, 1994; Petersen, Louw & Dumont, 2015). Academic adjustment in particular has a direct impact on academic performance. When students struggle to adjust to the higher academic demands, a faster academic pace and new academic tasks, they are likely to perform poorly in tests/assignments (Credé & Niehorster, 2012). After reviewing some of the literature on adjustment, Credé and Niehorster (2012) found that adjustment is predictive of college grades. Grayson (2003) also found that students who adjust early during the first year may have a slight advantage in terms of module completion. Similarly, Petersen et al. (2009) found that the quality of adjustment had a significant effect on academic performance. Students who adjust better tend to achieve higher academic grades at the end of their first year. Conversely, one can therefore argue that, when students struggle to adjust, their grades are more likely to be negatively affected and this in turn put them at risk of attrition.

The effect of adjustment on student attrition is more pronounced during the first year (Abdullah et al., 2010; Bowman & Bowman, 2000; Credé & Niehorster, 2012; Gerdes & Mallinckrodt, 1994; Hurtado et al., 1996; Martin et al., 1999; Schnuck & Handal, 2011). Tinto (1993) is of the opinion that students who drop out early during the first year have not been able to integrate into the institution academically and/or socially. This implies that they most likely struggled to adjust either to the institution, academic demands, socially or to a combination of these. After reviewing the literature on adjustment, as measured by the Student Adaptation to College Questionnaire (SACQ), Credé and Niehorster (2012) concluded that adjustment is a good predictor of retention. This conclusion offers support to Tinto's contention. While numerous studies indicate a direct relationship between adjustment and attrition (Abdullah et al., 2010; Baker & Siryk, 1984; Credé & Niehorster, 2012; Gerdes & Mallinckrodt, 1994; Krotseng, 1992), poor adjustment can also indirectly affect attrition. Poor adjustment may have an adverse effect on academic performance, which may result in attrition due to academic reasons (Credé & Niehorster, 2012).

4.3.3. Adjustment of FGS

According to Harvey et al. (2006), the increase in diversity has certainly diversified the FYE and has resulted in an increased need for HEIs to support a more diverse student population during the FYE. Support to FGS is regarded as crucial (Davis, 2010), as these students face unique challenges during their HE journey (Ishitani, 2003). FGS differ from their second+-generation peers, both in terms of entering characteristics and HE experiences (Terenzini, et al., 1996; Aspelmeier, et al., 2012; Bui, 2002). This makes the transition from school to HE different and more complex for FGS (Pascarella, et al., 2003; Terenzini et al., 1996). It is true that most students experience some adjustment difficulties during their first year, but the adjustment challenges of FGS are heightened by social factors such as their educational backgrounds, family backgrounds, financial circumstances and even language barriers (Jehangir, 2010), leaving them more vulnerable to the multifaceted adjustments (academic, social, institutional and personal-emotional) they need to master during their first year. It must be noted that, although the above-mentioned factors make them more vulnerable, some FGS do experience smooth transitions (London, 1996; Thomas, 2002).

Academically, some FGS come from educational backgrounds that did not adequately prepare them for HE (Fischer, 2007; Jehangir, 2010; Nel & Nel, 2009; Trow, 2000). While students presenting as academically underprepared do not necessarily do so due to a lack of ability or intelligence, but rather as a result of their educational background (Johnes, 1990; Nel & Nel, 2009), their level of preparedness may influence their academic adjustment. Entering academically less prepared may make it harder for students to cope with the higher volumes of work and the rigorous curriculum. They may lack the skills required for academic success such as effective study and time management

skills (Davies, 2010; Jehangir, 2010; Johnes, 1990). This makes their academic adjustment during the first year even harder. In a study on the experiences of FGS, conducted by Bui (2002), these students expressed feelings of being underprepared for HE and hence needed to put more time into studying than other students. These feelings often led to time spent on studying at the expense of social activities, which could make it hard for them to adjust socially.

FGS may also struggle with social and institutional adjustment. As mentioned, increased time spent on academic work often results in less time for social engagement. This not only puts them at risk of social isolation, but it increases the risk of drop-out - as students who are inactive on campus are at a higher risk of dropping out during the first year (Gilardi & Guglielmetti, 2011). Additionally, they may struggle to fit into their new environment, which could have a negative effect on their relations with their peers and lecturers. Feelings of not fitting in may also result in less confidence to engage with peers and lecturers at the institution (Davies, 2010; Jehangir, 2010; Tinto, 2012;). According to Davies (2010), FGS often struggle to engage, both inside and outside the classroom. This was confirmed by a study done by Hertel (2002) who compared the adjustment of FGS with that of second+-generation students. While no significant difference between the groups were found in terms of general adjustment, FGS did report poorer social adjustment. Parents of FGS are not familiar with the operations of HE and cannot serve as guides to them (Tinto, 2012; Jehangir, 2010). All these adjustment challenges may affect their personal-emotional adjustment. Ishanti (2003), for example, argues that the challenges encountered by FGS may lead to them questioning their ability to gain a HE qualification. For FGS from low income backgrounds who encounter challenges additional to those mentioned under this section, adjustment difficulties and drop-out are greater risks.

4.3.4. Adjustment of FGS from low income background

FGS who are from low income backgrounds face the biggest challenges during their first year and they run the greatest risk of attrition (Davies, 2010; Harvey et al., 2006; Tinto, 2012, 1993). The low income backgrounds that these students come from, pose challenges that FGS from middle or high income homes do not necessarily face. A major challenge that these students face is the poor educational background they come from which did not adequately prepare them for HE. Obtaining a degree generally holds much more value to FGS from low income backgrounds. Education serves as gateway to a middle class income and consequently a better standard of living. However, the process of obtaining a degree is often marked with conflict related to their changing identities and changing relationships with family and friends.

Most FGS from low income backgrounds also come from poor schooling backgrounds. Barefoot (2000) highlights the systemic nature of the challenge of underprepared students within HE.

Massification has resulted in a change in the first-year student profile, but the academic structure of the first year has remained unchanged. The first-year academic structure was designed for the White, middle or upper class male (Barefoot, 2000), who was able to meet traditional standards of preparedness (Crissman Ishler, 2005). This structure has neither been designed for FGS from low income backgrounds, nor has it adjusted to the level of preparedness that these students present. Instead, students are given access, in spite of their educational backgrounds, and they are expected to manage the demands of HE irrespective of their accessing HE with lower levels of academic preparedness. Jehangir (2010) highlights a very important issue by stating that these gaps in education/preparedness could translate into anxieties and doubt in their ability to manage the academic demands of HE. He (Jehangir, 2010) further points to the way in which the HE structure contributes to social isolation of these students through, for example, the curriculum content and language of HEIs that do not reflect the realities of these students. The students are just expected to understand the curriculum content and to adjust to the cultural and linguistic demands, even if it is unfamiliar to them.

FGS from low income backgrounds need to navigate conflicting roles during their HE journey, of which their role in the family can be most conflicting (Jehangir, 2010; Rodriguez, 1975). Experiences in the environment inevitably foster changes in the students themselves (Jehangir, 2010; London, 1989; Rodriguez, 1975). While it is true for all first-year students, these experiences can be particularly difficult to navigate for FGS from low income backgrounds, as these students could begin to express views and perceptions of the world that may be alien to those of their parents (Jehangir, 2010), often leading to conflict and even separation from their parents (Rodriguez, 1975, London, 1989). This can be a painful experience for these students who often access HE partly to improve the lives of their families, only to find that the experience of HE does not only change them, it also causes some separation from their parents and other family members (Rodriguez, 1975; London, 1989). London (1989: 145) articulates these experiences well when he states that "growth implies loss". The reality is that FGS from low income backgrounds are redefining their family history and themselves and while on this journey, they experience some separation from their families (Rendon, 1998) and from their friends at home (Jehangir, 2010; London 1996; Rendon, 1998) as they find themselves changing through the process of getting a HE qualification (London, 1996).

The experiences of separation for FGS from low income backgrounds is not the same as the separation that all students experience. These students' journey upward towards social and economic mobility also brings about a sense of loss (London 1996, 1989). As they move towards a middle class income, their identity changes. This involves shaking off some aspects of themselves and taking on new ones (London, 1996). The students are therefore required to renegotiate relationships with their parents,

family and friends from home and even with themselves (London, 1996). They start confronting these issues during their first year already, and during this time they still need to meet the academic demands of the institutions they often enter academically underprepared. This is a very challenging task and given the feelings (such as anxiety, sadness, fear) that may accompany this process, having to adjust to this new environment could be hard.

Most FGS are unfamiliar with the HE culture, as most of their parents do not have the HE experience to guide them through the process. While this might also be true for FGS from middle income families, Jehangir (2010) argues that for FGS from low income backgrounds, adjusting to the HE culture is magnified due to language. They often need to grapple with the new language of the academic environment that is foreign to them. When students do speak or write, they have the pressure to ensure that it is done in the language acceptable to the new academic environment (Jehangir, 2010). This may cause some anxiety and even a reluctance to speak in class or to engage with members of the academic community (Jehangir, 2010; Davies, 2010). It may also affect their confidence, which may result in less engagement and could in turn negatively affect their academic and social adjustment at the institution.

FGS from low income backgrounds may experience a sense of isolation or alienation on campus (Davidowitz, 2009; Jehangir, 2000). They might fail to experience a sense of belonging at the institution, which is meant to be their pseudo-home (Davies, 2010). Traditionally, HEIs were elite institutions, only admitting a limited number of students primarily from privileged socio-economic backgrounds (Ramdass, 2009; Shin & Harman, 2009; Trow, 2000). The financial situation of FGS from low income backgrounds is different to those of the students who traditionally accessed HE – which also makes their FYE different. For FGS from low income backgrounds, fitting into an environment/culture that has traditionally catered for students from more privileged backgrounds might be hard, especially if they do not feel included or validated on campus. They may also lack the finances to participate in activities that cost money, which could further contribute to their social isolation. This has an impact on their FYE and adjustment to the institution.

While HE provides an opportunity to break away from poverty, the financial realities of these students make it difficult to obtain the much desired HE qualification (Jehangir, 2010). Financial support is critical in converting access into success for FGS from low income backgrounds (Jehangir, 2010). In the absence of sufficient financial assistance, financial concerns could turn the FYE of these students into a nightmare. They sometimes take up paid employment to help fund their studies, leaving little time available for academic and social activities (Jehangir, 2010; Johnes, 1990; Tinto, 2012), and making it harder to meet the academic demands of the course (Tinto, 1993). Part-time employment also has an impact on their social lives as they are left with less time for engagement (Tinto, 2012).

The students may struggle to fit in if they cannot afford the perceived lifestyle or attend activities due to financial constraints. They may therefore struggle to find their niche socially, especially on a campus where the majority of students are from middle to high income backgrounds. All the challenges faced by FGS from low income backgrounds make the FYE for these students a very tough one. It is for this reason that Terenzini et al. (1996) advocate for targeted support for these students during the first year and beyond in order to assist them with the transition and adjustment process at HEIs. It is important for all FGS to feel validated and integrated into their new environment (London, 1996; Rendon, 1998). When they feel integrated, they experience a sense of belonging and they become more confident (London, 1996). They consequently engage more, adjust better and have better prospects for success.

4.3.5. Supporting students with adjustment

The importance of student success in HE is incontestable for both students and HEIs (Kuh et al., 2008; Tinto, 2012, 1993; Yorke & Londen, 2004). Given the significance of success during the first year, HEIs globally are attempting to enhance the FYE through various programs (Barefoot, 2000; Hunter, 2006; Tinto, 2012), as interventions during the first year have the potential to increase retention and student success (Person, Escoe & Lewis, 2009; Tinto, 2012). Given the significance of adjustment discussed above, Hunter (2006) argues that interventions aimed at facilitating good adjustment during the first year are very important. Adjustment does not occur instantaneously, but requires intentional efforts by the institution (Hunter, 2006; Paul & Brier, 2001).

Students who partake in adjustment initiatives not only benefit in terms of their adjustment (Peat, Dalziel & Grant, 2000; Dalziel & Peat, 1998), but participation also offers a platform to make friends (Peat et al., 2000) and to engage. Many institutions focus on support with adjustment through induction (Harvey et al., 2006; Tinto, 2012), but it is advisable that additional interventions follow the induction period for the rest of the first semester (Tinto, 2012). Students could be overwhelmed by all the information they receive during induction, or they might not know what questions to ask at this stage (Tinto, 2012). While early intervention is important (Van Schalkwyk et al., 2009; Schreiner & Hulme, 2009), offering programs during the induction period alone may not be sufficient in minimizing adjustment difficulties.

Given the diverse range of students gaining access to HEIs, it is important that adjustment programs are sensitive towards the nature of the adjustment challenges experienced by all students. According to Hargreaves (1998), HEIs should align their programs to the changing needs of students accessing HE. This may require training for staff, aimed at sensitizing them to different adjustment challenges experienced by students (Gregory, 2009). While it is important for students to adjust to their new

environment, HEIs should guard against adopting a deficit-model approach where the student who struggles to adjust is seen as 'not good enough' or 'lacking'. It is equally important for the HE environment to be sensitive to the needs of students and, where appropriate, the HE environment itself should also adjust to the needs and experiences of students. Carter and McNeill (1998) are of the opinion that peer involvement plays a powerful role in assisting students with their adjustment. Peer group initiatives such as peer mentoring programs can thus play a significant role in easing the transition and adjustment during their first year.

4.4. PEER MENTORING PROGRAMS

Youth mentoring programs have become more common in recent years and have been implemented in a variety of areas, including emotional and behavioral functioning, academic achievement as well as employment and career development (DuBois et al., 2002). In response to the challenges faced during the first year, mentoring programs have also become more prevalent in the higher education sector, with many HEIs developing formal mentoring programs for first-year students (Jacobi, 1991). These mentoring programs have been viewed as a critical component of undergraduate education for decades (Jacobi, 1991; Terrion & Leonard, 2007) and they have become an integral part of the support programs offered at many HEIs (Christie, 2014). One form of mentoring that has become increasingly popular recently is peer mentoring.

Given the significance of the peer group, peer mentoring has significantly grown in importance in recent years (Barefoot, 2000; Collings et al., 2014; Shotton, Oosahwe & Cintrón, 2007). Peers play a noteworthy role in the development of students (Astin, 1993; Tinto, 2012) and peer relationships are very significant during the FYE (Barefoot, 2000; Tinto, 2012). Astin goes as far as saying that the most important environmental influence on student development is the peer group (Astin, 1993), as peers can play a critical role in creating engaging learning environments (Kuh et al., 2010). There is no shortage of anecdotal evidence about the benefits of peer mentoring programs, but there is limited research that examines peer mentoring relationships (Grant-Valone & Ensher, 2000; Knowles & Parsons, 2006). While peer mentoring programs are generally implemented as a means of improving retention (Collings et al., 2014; Shotton et al., 2007; Tremblay & Rodger, 2003; Ward, Thomas & Disch, 2012), the limited research available has found that peer mentoring can also contribute to improved academic performance and improved adjustment (Thile & Matt, 1995). This section of the chapter explores the significance of peer mentoring programs. Before it does so, it offers a definition of peer mentoring and the different formats in which it is utilized.

4.4.1. Defining peer mentoring

Mentoring relationships are complex, which makes mentoring difficult to define (Gehrke, 1988) and while there are many definitions of mentoring, the mentoring literature still lacks a widely accepted definition of the concept (Busch, 1985; Crisp & Cruz, 2009; Jacobi, 1991). The definition of Campbell and Campbell is used to define mentoring in this study. Campbell and Campbell (1997: 727) define mentoring as "a situation in which a more experienced member of an organization maintains a relationship with a less-experienced, often new member to the organization, and provides information, support, and guidance so as to enhance the less-experienced member's chances of success in the organization." In traditional forms of mentoring, the more experienced member of the organization is a staff member, whereas in peer mentoring initiatives the more experienced member is a senior student. Peer mentoring often matches senior students (mentors) with new first-year students (mentees), orientating them to the new environment and guiding them with transition during the first year (Collings et al., 2016) in an attempt to increase their chances of success during the first year. In spite of a lack of a widely accepted definition of mentoring, the literature reports consistent patterns in the functions that the mentor offers in relation to the first-year student.

After reviewing the literature on mentoring, Jacobi (1991) concludes that most definitions define mentoring in terms of the functions provided by the mentor in relation to the mentee. These functions are three-fold and include 1) a psycho-social function, 2) a career and professional development function and 3) a role modelling function. This conceptualization is also adopted by Kram (1983) and Kram and Isabella (1985), although they do not consider role-modelling as a separate function but rather as part of the psycho-social function. The psycho-social function of mentoring requires the mentor to offer emotional and psychological support to mentees while the career and professional development function requires the mentor to provide advice, support and information related to task accomplishment and career success (Terrion & Leonard, 2007). In the context of peer mentoring programs offered to first-year students, peer mentors offer psycho-social support that helps first-year students adjust to the new environment and they offer advice and guidance on how to be academically successful during the first year of study. It must be noted that peer mentoring differs from peer tutoring[2]. The scope of this study is limited to peer mentoring, which generally focusses more on the psycho-social aspect rather than on support with course content.

Peer mentoring initiatives may differ in terms of their formality/structure. Some programs are more formal and structured while others are less formal (Redmond, 1990). HEIs are increasingly

[2] Peer tutoring involves a more advanced student helping a less experienced student with course content, with the aim of improving academic performance (Colvin & Ashman, 2010).

implementing more structured peer mentoring programs (Allen et al., 1999) instead of just allowing peer mentoring relationships to develop naturally (informal programs). Generally the mentoring takes place face-to-face, but in some instances it may occur via online communication (Mollica & Mitchell, 2013). Peer mentoring programs also differ in duration. Some programs are short (a period of a few weeks), while others run throughout the first semester. According to Jacobi (1999), the pairing of mentor and mentee also differs. For instance, some programs prefer ethnic and gender pairing, while others do cross-ethnic and cross-gender pairing.

The intensity of the peer mentoring relationship also differs (Jacobi, 1991) and this may be significant to the outcomes of the peer mentoring program. Some mentors and mentees share a close bond, even friendship, while in other instances the contact between mentor and mentor is very limited. In view of the different dynamics that exist in the mentor-mentee relationship, Gehrke (1988) argues that no uniformity exists in peer mentoring relationships. There are many factors that contribute to the dynamics of the peer mentoring relationship. Leidenfrost, Strassing, Schabmann, Spiel and Carbon (2011) point to the different mentoring styles of mentors and how that may affect the intensity of the peer mentoring relationship and outcomes of the peer mentoring program. In a study done by Collings et al. (2016) it was found that contact between mentor and mentee had diminished for many participants ten weeks into the semester, and the participants attributed this to the mentor ceasing contact. Their findings raised concerns about the level of commitment of mentors and how this could possibly influence the outcomes of peer mentoring programs. The level of participation from the mentee, according to Smith (2007), is also important as high participation from mentees often strengthens the peer mentoring relationship and increases the benefits of the program. Both mentor and mentees have unique personalities and attributes that influence the relationship they share, and the dynamic or interaction between them is likely to influence the outcomes of the peer mentoring program.

4.4.2. The significance of peer mentoring

Peer mentoring initiatives hold various benefits to mentored students (mentees), mentors and HEIs (Leidenfrost et al., 2011; Treston, 1999), making it a significant and vital initiative (Kram & Isabella, 1985). While the benefits to mentees are most relevant to this study, it is noteworthy to mention some of the benefits to HEIs and mentors. HEIs benefit from reduced drop-out rates (Leidenfrost et al., 2011; Treston, 1999) and from reductions in student attrition (Leidenfrost et al., 2011). Peer mentoring is cost-effective with great benefits, especially with regard to assisting students with adjustment to the new HE environment (Bowman & Bowman, 1990; Schreiber, 1997). Mentors, on the other hand, have reported benefiting in terms of confidence, social acquaintances (Fox & Stevenson, 2006) and skills acquisition that increases their employability (such as communication

and leadership skills) (Treston, 1999; Kirkham & Ringelstein, 2008), and they also gain satisfaction from knowing they can make a difference in someone's life (Treston, 1999). Mentees have reported benefiting in terms of increased integration, improved academic performance and improved adjustment (Treston, 1999; Kirkham & Ringelstein, 2008).

Given the global challenge of high attrition rates during the first year, peer mentoring programs have been increasingly implemented as a means of improving retention (Collings et al., 2014; Shotton et al., 2007; Tremblay & Rodger, 2003; Ward et al., 2012). In a study evaluating the impact of a peer mentoring program, Collings et al. (2014) found that peer mentored students showed higher levels of integration into the institution. Similarly, Ward et al. (2012) found that first-year students had the benefit of increased social support and social integration when they participated in a holistic peer mentoring program, while Chester, Burton, Xenos and Elgar (2013) found that participation in a peer mentoring program positively influenced a sense of belonging amongst participating students. These findings are very significant for retention as Tinto (1993) believes that, with increased integration, students are likely to persist. Findings that students who participated in the peer mentoring program were more integrated, further suggest that these students have a lower risk of attrition. In addition to impacting positively on retention, Johnes (2006) argues that the students' level of integration may also have a positive influence on their academic performance.

In spite of the limited research on peer mentoring (Knowles & Parsons, 2009), various studies have reported significant results with regard to improved academic performance as a result of peer mentoring (Chester et al., 2013; Fox & Stevenson, 2006; Kim, Oliver, Ringen, Taylor & Rankin, 2013; Leindenfrost et al., 2011; Schreiber, 1997). Kim et al. (2013) found that mentored students performed better academically than a control group of students who had no mentoring. Similarly, Fox and Stevenson (2006) found that students who participated in a peer mentoring program performed better academically in terms of their examination papers passed, compared to non-participating students. Kirkham and Ringelstein (2008) found that mentees' academic performance had improved. This was demonstrated in improved student learning and problem solving skills, as well as with regard to increased self-esteem and motivation. Contrary to these findings, Tremblay and Rodger (2003) did not find any significant difference in academic performance between mentored and non-mentored students. This study highlights the importance of participation and concludes that the level of participation by mentees influences the outcomes of the peer mentoring program.

A major factor influencing student retention is the first-year experience (Tinto, 1993). Accordingly, peer mentoring programs often assist students with adjustment during the first year (Collings et al., 2014; Allen, McManus & Russel, 1999; Grant-Vallone & Eshner, 2000; Treston, 1999). Some studies reported significant results in peer mentoring programs buffering the transition from school to HE

(Collings et al., 2014; Allen et al., 1999; Grant-Vallone & Eshner, 2000), improving socialization of the first-year student into the new academic environment (Allen et al. 1999; Grant-Vallone & Eshner, 2000) and reducing stress (Allen et al., 1999; Fox et al., 2010) and anxiety (Kim et al., 2013). Not all students, however, equally utilize and benefit from peer mentoring programs. Collings et al. (2016), for example, found that while many students benefit from peer mentoring in the first few weeks of the program, involvement in the program tapered off after ten weeks. They argued that while mentors offer support to the majority of first-year students, especially during the first few weeks, mentors may play a more significant role in assisting a minority group of students who are struggling to adjust to the institution after the welcoming period.

A primary reason for the implementation of peer mentoring programs is to enhance the retention and performance of at risk groups (Campbell & Campbell, 1997; Good, Halpin & Halpin, 2000; Treston, 1999), as peer mentoring programs in HE is regarded as an effective intervention that contributes to the retention and success of vulnerable students (Terrion & Leonard, 2007). Collings et al. (2016) found that students with a high intention to leave were more likely to want increased support from a mentor. These students also had lower levels of integration and well-being. Peer mentoring can therefore play a vital role in assisting FGS and FGS from low-income backgrounds with the transition during the first year and, in doing so, improve retention.

Peer mentors can assist FGS in various ways. In addition to the general psycho-social support offered by mentors, peer mentoring can also assist FGS in accessing the needed support within the institution timeously. Peer mentors, for example, can offer guidance to students and they can direct students to the relevant support staff when necessary (Kuh et al., 2010; Tinto, 2012). This is particularly important during the first year when students are confronted with the challenge of adjustment to their new environment. This peer mentoring function is especially beneficial to FGS whose parents cannot play the role of a guide due to their unfamiliarity with the culture of HEIs. According to Tinto (2012), peer mentors also act as an "early warning system", providing feedback to the institution on students who are facing difficulties or who might be at risk (Tinto, 2012). This can assist the FGS to develop the necessary skills timeously and, in doing so, increase the chances of success.

Evidence of the use of mentoring programs to address the challenge of retention and delayed graduation time of a diversity of students, is promising (Redmond, 1990). However, the significance of gender and ethnic similarity in these programs remains open to debate. There is currently no consensus on this matter within HE. While some authors argue that cross-gender and cross-racial mentoring relationships can be effective, many programs in practice pair mentors and mentees of the same gender and race (Jacobi, 1991). According to Moore and Amey (1988), some students of colour may prefer being mentored by someone from a similar race, as they may experience difficulty in

relating or learning from mentors of a different race. Racial pairing can be especially useful for students of colour who are minority students on predominantly white campuses, as mentors can offer support on socialization into the new environment (Jacobi, 1991). Same-race mentors can also be powerful role-models, especially for FGS of colour. Successful mentors symbolize success and they demonstrate that success is possible, even for FGS who face the multitude of challenges they often encounter. Gender pairings may also be significant. Crisp (2010) found that males and females benefited differently from a peer mentoring program. Gender pairings might therefore be beneficial in some circumstances. As stated, there is no consensus yet with regard to the significance of gender and ethnic pairing. Thus HEIs and first-year students will benefit from careful consideration of these factors in the planning and implementation of peer mentoring initiatives.

An increasing recognition of the benefits of peer mentoring is indisputable, yet Christie (2014) argues that one should be cautious of the potentially negative effects of peer mentoring (for example the power dynamics at play with the mentor being perceived as the expert). Given the limited research on peer mentoring, Christie (2014) argues that research that develops more critical approaches to peer mentoring is required. This is an important point to be aware of when implementing peer mentoring programs, especially in light of the contradictory findings in the study of Collings et al. (2016). While their study found benefits to the peer mentoring program, it also found that mentees who discussed personal issues with their mentors tended to have lower levels of well-being and college adjustment and a higher intention to leave. These findings underscore the importance of mentor training. It is also important that mentors understand their own limitations. As mentors are not trained student affairs professionals, they may struggle to guide students on personal matters and should therefore rather refer mentees to the relevant professional, instead of giving advice based on their personal experiences/beliefs, as this may not be the ideal way of addressing personal challenges for the mentees. These findings, however, do not negate the positive findings on peer mentoring programs, but serve as reminder to always critically reflect on any program, including peer mentoring programs.

4.5. THEORETICAL ORIENTATION OF THE STUDY: TINTO'S ACADEMIC AND SOCIAL INTEGRATION MODEL

There has been a range of theoretical approaches applied to mentoring programs. Theoretical models of mentoring in HE have included social learning theory, involvement in learning, social support models, developmental support and the academic and social integration model of Tinto (Jacobi, 1991). This study has adopted Tinto's latest academic and social integration model as theoretical framework. It focusses on his most recent work, as articulated in his book *Completing College, Rethinking Institutional Action*. In this work Tinto (2012) focusses on how institutions can facilitate the retention and success of students. The theory evolved from his earlier work in the seventies and

eighties (Tinto, 1975, 1983, 1993). In his earliest work (Tinto, 1975) he offered a model of attrition, explaining the aspects and processes that influence a student's decision to drop out (Tinto, 1975), followed by a theoretical account of student departure. His 1993 theory, *Leaving College- Rethinking the Causes and Cures of Student Attrition*, is a revision of his work of 1983 and offers a model of academic and social integration. This theory has a strong emphasis on how HEIs need to think about student retention.

In *Completing College, Rethinking Institutional Action*, Tinto (2012) moves beyond the way of thinking required by HEIs and offers a comprehensive account of how institutions can facilitate student success. The focus is therefore on the *action* institutions need to take to improve retention and success (Perna, 2014; Tinto, 2007, 2012, 2014). Tinto (2012) argues that, in spite of the extensive research and theory on student attrition, there has been a lack of coherent theory on the institutional action that needs to be taken. His revised theory attempts to bridge this gap with its account of institutional actions to be taken that would not only reduce attrition, but also foster student success. His theory is a sociological model, highlighting the role that the academic and social environment of a HEI play in student success (Tinto, 2012). Tinto (2012) is of the opinion that HEIs need to do everything in their power to help all students stay and graduate, irrespective of their level of preparedness. They can do so by establishing conditions that promote success. Factors that determine the level of preparedness at entry, like the schooling system - he argues - are beyond the control of the HEI and cannot be the focus. The institution can, however, establish the conditions on campus that promote success, and this should be the focus. These conditions relate to student expectations, support offered to students, assessment and involvement.

The first condition relates to expectations. Expectations are powerful and they are shaped by a variety of factors. Tinto argues that institutions should set clear expectations for their students. Expectations should be high for all students, as this will lead to a greater effort on the part of the students who will attempt to achieve these expectations. This in turn will lead to more time and effort invested in academic activity. It is important that institutions hold the same high standard of expectations for everyone, irrespective of their class, gender and ethnicity. FGS, he argues, often do not know what to expect due to a lack of knowledge transfer from their parents. If the institution sets high standards for them, it will help shape their own standards positively, while low standards by the institution will influence them negatively (Tinto, 2012).

Assessment and feedback is another condition. Institutions should do frequent assessments which are then followed by feedback to the student. This will enable students to adjust their behavior (such as study methods and habits) to new behavior that will promote success (Tinto, 2012). This could be of great benefit to especially FGS who present underprepared for HE.

The other two conditions, support and involvement, are most relevant to the peer mentoring program being evaluated in this study. A more comprehensive account of these factors will therefore now be given. While support primarily entails academic and social support, Tinto argues that it should include financial support to needy students, as a lack of finances impacts on social and academic integration[3]. Academic support through various programs is critical not only for the acquisition of skills, but also for building confidence (Tinto, 2012). Social support is equally important. Tinto (2012) contends that the social experience at the institution, especially during the adjustment period of the first year, can positively contribute to student attrition and success. Institutions should therefore create an environment that fosters a sense of belonging, as students who experience a sense of belonging are likely to stay enrolled, are more likely to access support, their confidence improves and they are more committed to the institution. This sense of belonging is particularly important for minority students who might feel out of place, e.g. African students enrolled in predominantly White institutions (Tinto, 2012). Minority students are more likely to exit the institution (Tinto 1993), hence social support to these students is important for improved retention and success (Tinto, 1993, 2012).

The final and most important condition is involvement (engagement)[4]. According to Tinto, HEIs should foster the involvement of all students (Tinto, 2012). Student engagement has two key components that contribute to student success. The first component is the amount of time and effort students put into educationally purposeful activities, while the second component refers to the ways in which the institution promotes engagement of its students (Kuh et al., 2010; Kuh, 2005). Tinto's theory specifically focusses on the latter, as his theory is centered around the institutional actions HEIs need to take to foster involvement. Tinto (2012) distinguishes between academic and social involvement and while these two may differ, they also overlap. Ultimately, learning is what facilitates success; hence what happens in the classroom is crucial (this is especially true for commuter students who spend most of their time on campus in the classroom). Institutions should therefore facilitate engagement in the classroom through, for example, active teaching, as engagement in the classroom leads to increased effort in learning outside of the classroom, translating in increased learning and a likelihood of persisting (Tinto, 2012, 1993). Students who are academically and socially more involved on campus have a better chance of succeeding, as engagement increases learning and development (Tinto, 1993, 2012, 1999).

[3] A lack of financial support negatively impacts on academic and social integration/activity by making it difficult for students to participate in academic and social experiences (Tinto, 2012)

[4] Tinto's concept of student involvement is similar to the concept student engagement. The terms student involvement and student engagement are used interchangeably in the study.

What happens outside the classroom is equally important, hence involvement in academic and social life both inside and outside the classroom is of importance. Given the overlap between academic and social involvement, social involvement at the institution is as important as academic involvement. (Tinto, 2012, 1993). Students who engage in social and academic life make more contact with peers and lecturers, and in doing so they are likely to learn more (Tinto, 1993). Engagement also promotes active learning with peers, inside and outside the classroom, and increases the quality of investment in their learning (Tinto, 2012, 1993). These students invest more and hence they learn more (Tinto, 1993). Increased engagement with staff and peers leads to a sense of belonging, which in turn decreases the risk of attrition. Initiatives that promote engagement with peers, such as learning communities and peer mentoring programs, can play an important role in facilitating involvement and learning.

Tinto's conditions are particularly critical during the first year of study (Perna, 2014; Tinto, 2007, 2012, 2014). The first year is critical, as engagement in the first year provides the basis on which subsequent affiliations are built (Tinto, 2012, 1999). When all these conditions are present, students have a better chance of persisting. The absence of one action undermines the efficacy of the others. These actions should be consistently applied over the long term and they should be supported by policy (Tinto, 2012). It is my contention that the peer mentoring program at SU provides two of the conditions proposed by Tinto, that is support and involvement, and in doing so it facilitates engagement of students, which help them to adjust better to university life.

Tinto's theory is particularly relevant within the context of massification. Davids (2010) argues that, while a lack of preparedness could be a significant barrier to student success, it can be addressed successfully. This is possible if HEIs commit to the success of all their students (Tinto, 2012) without stereotyping students who present as underprepared (Hrabowski, 2005). The educational backgrounds of these students are beyond the control of HEIs and these institutions, according to Scott (2009), should rather identify factors affecting student performance that are within their control and act on those. Tinto's theory offers institutions a set of actions that can be taken to address the factors that are within their control. It also moves away from the deficit model that focusses on the student's shortfalls, but rather focusses on optimizing potential through supportive HEIs environments.

One cannot deny the importance of academic/cognitive ability, but Tinto (2012) argues that retention is influenced more by what happens at the institution than by what happened before enrolment. According to Tinto (2012), institutions need to do everything they can to facilitate student success, irrespective of the level of preparedness of the students enrolled, as access without support cannot be viewed as opportunity. If institutions are committed to supporting all students and they create an institutional culture where everyone can have a fair chance of succeeding, success rates can be

improved across the board. Supporting FGS cannot be an add-on, but rather requires a genuine commitment to enhance retention and success of all students (Tinto, 2012, 2008, 1999). Expanding access to a diverse student population is not enough; it is about completing a degree, not merely about access (Tinto, 2012). Students enrolled at institutions that have a strong commitment and orientation to their students are more likely to develop academically (Astin, 1993). Tinto's theory offers a blueprint of actions that can be taken to assist HEIs in creating environments that foster student success.

4.6. CONCLUSION

Broadened access has opened the doors of HE to a diverse group of students. Access to FGS in particular has been high on the agenda, given the social and economic benefits that education holds for FGS themselves, their families and communities. Widened access has unfortunately not been accompanied by success, and HEIs continue to face the dual challenge of access and success, especially the success rates of students who present as underprepared for HE. What happens in the first year is very significant to student success, and adjustment during the first year in particular plays an important role in academic performance, retention and the wellness of first-year students. It is for this reason that most HEIs support first-year students with their adjustment to campus. The adjustment of FGS is even more complex, with FGS from low income backgrounds facing the most intense adjustment challenges. The implementation of support programs that are aligned to the diverse needs of students is critical if the success of all students are to be improved. Peer mentoring initiatives can play a powerful role in supporting students with adjustment during the first year. As Tinto (2012) states, access without support is not opportunity, and HEIs should therefore commit themselves to create conditions that facilitate the success of all students. For Tinto, these conditions relate to expectations, assessment, involvement and support. When all these conditions are present, students have a better chance of staying and succeeding. It is my contention that peer mentoring programs can contribute positively in creating the type of HEIs that cultivate success. The research findings of this study will give valuable insights in this regard.

CHAPTER 5
RESEARCH METHODOLOGY

5.1. INTRODUCTION

The previous chapters gave the contextual and theoretical background to the study. Chapter 2 outlined the current context and challenges of higher education (HE) in South Africa (SA). The chapter underscored the importance of student success for all students within a post-apartheid SA and the pivotal role that HE should play in the development of an inclusive, democratic society. Chapter 3 then contextualized Stellenbosch University (SU) as one of South Africa's higher education institutions (HEIs). It further introduced the reader to the peer mentoring program at SU. Chapter 4 explored the first year of a student at a university and the significance of adjustment during the first year.

This chapter goes beyond the contextual and theoretical aspects of the study and discusses the research methodology. The chapter discusses all the steps taken in an attempt to answer the research question by deliberating the purpose and objectives of the study, the research paradigm and approach, the research design and the data collection and data analysis strategies employed. Throughout this chapter, the rationale behind the decisions taken is also being explained. The chapter is concluded with the validity and some of the ethical challenges that required critical consideration from me as an insider researcher. The discussion commences with an outline of the purpose and objectives of the study.

5.2. PURPOSE AND OBJECTIVES OF THE STUDY

The purpose of the study was to investigate the outcomes of one of the programs being offered to first-year students at SU, namely the Be Well Peer Mentoring Program. I was approached by one of the founders of the program to do an evaluation of the program as no evaluation of the outcomes of the program had been done yet. I agreed to take on this study as the study was aligned to my personal interest. When I started with this research study, I was working at the Centre for Student Counselling (CSCD) as a psychologist, providing psychotherapeutic support to students and facilitating group sessions and workshops on various topics relevant to their interests and needs. In my secondary position I was working as a residential head for the Centre for Student Communities (CSC). Through my experiences in these positions, my passion for first-year adjustment and student success intensified and I became aware of my interest in mentoring. The study therefore fell within my scope of interest and I was keen to make a valuable contribution to our understanding of how students

experienced the program. I must further note that, as residential head, I had some exposure to the peer mentoring program, as the program has been implemented in all university residences.

A primary aim of the program is to positively contribute to the adjustment of first-year students and in view of this aim, I decided to specifically focus my investigation around this intended outcome. Bearing this in mind, the goal of the study was threefold:

- Firstly, it sought to investigate *whether* participation in the program made a contribution to the adjustment of participating first-year students.
- I further sought to understand *how*, if at all, participation in the program contributed to the adjustment of participating first-year students.
- Finally, I aimed to explore specifically *to what extent* the wellness component of the program contributed to the adjustment of first-year students.

The purpose and goals of the research provided the framing for the research questions, as illustrated in Figure 5.1. The research questions are the specific questions the study aims to answer (Plano Clark & Badiee, 2010). The nature of the research questions was significant for the methodology of the study: they guided the entire research process. When framing the research questions, it was important to ascertain whether the purpose of the study is explanation or understanding (Biesta, 2010). This study aimed to do both, as reflected in the research questions below. The research question and sub-questions included questions that sought explanations. These are mostly quantitative and deductive in nature, aimed to investigate differences, comparisons or relations (Plano Clark & Badiee, 2010; Creswell & Plano Clark, 2011). The qualitative questions, on the other hand, aimed at developing understanding and uncovering meaning and they are inductive in nature (Plano Clark & Badiee, 2010; Creswell & Plano Clark, 2011).

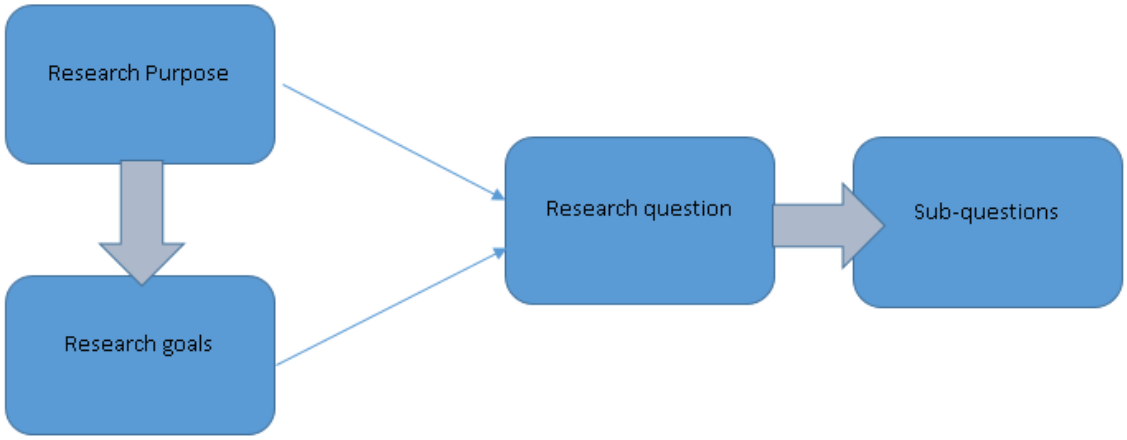


Figure 5.1: Relationship between the research purpose, goals and questions

The following research question guided the study:

What difference, if any, has the peer mentoring program at Stellenbosch University made in terms of the adjustment of first time entering first-year students?

This central research question aimed to both explore and explain the phenomenon under study, requiring a combination of quantitative and qualitative data. It sought to explore the relationship between two variables, that is peer mentoring (independent variable) and adjustment of first-year students (dependent variable). It further sought to explain the difference, if at all, that the peer mentoring program has made in terms of the adjustment of first-year students.

The following sub-questions guided the study:

- Have participants in a peer mentoring program at Stellenbosch University experienced better adjustment during their first year than non-participants?
- How, if at all, has participation in a peer mentoring program contributed to adjustment of first-year students at Stellenbosch University?
- To what extent has the wellness focus of a peer mentoring program contributed to the adjustment of first-year students at Stellenbosch University?

The first sub-question: *Have participants in a peer mentoring program at Stellenbosch University experienced better adjustment during their first year than non-participants?*, suggested comparisons between participating students and non-participants, requiring quantitative data. The other sub-questions required qualitative data, as they were aimed at developing understanding. The second sub-question was about how the peer mentoring program has contributed to the adjustment for participating first-year students. Additionally, the final sub-question aimed to understand how the

wellness focus of the program specifically has contributed to the adjustment of the participating students.

Once I had clarified the purpose of the study and formulated the research questions, I had to decide on a research paradigm that would guide my thinking during the research process. At an institutional level, the purpose of the study was to do a comprehensive, practically relevant investigation on the outcomes of the program that would be of benefit to the implementers as well as future participants of the program. At a broader level, the study addressed the gap in the literature on scientific inquiry into the outcomes of peer mentoring programs, and while some of the findings would be contextual to SU, other HEIs would be able to reflect on how the research findings could inform their peer mentoring program practices. Given the high importance I placed on the practical relevance of the study, I deemed the pragmatic paradigm suitable for the study. My research questions also pointed to a mixed-methods study, and while there is no one philosophical framework underpinning Mixed Methods Research (MMR), the pragmatic paradigm has been widely adopted for MMR (Johnson & Gray, 2010; Biesta, 2010; Greene & Hall, 2010; Descombe, 2008; Bryman, 2007).

5.3. RESEARCH PARADIGM

The research paradigm is central to any research study as it "influences the way knowledge is studied and interpreted" (MacKenzie & Knipe, 2006: 194). There are different meanings attached to the concept of paradigms in scientific inquiry. Morgan (2007) proposes four basic interpretations of the paradigm concept. In the broadest sense, paradigms are worldviews on experiencing and thinking about the world. The other three interpretations of this concept are more research-specific and Morgan (2007) summarizes them as follows:

1) Paradigms concern the philosophy of knowledge and as such they encompass the beliefs that influence how research questions are asked and answered (Morgan, 2007).

2) Paradigms refer to the conceptual beliefs held by a community of researchers about what the most meaningful research questions are, as well as the most appropriate procedures for answering research questions (Morgan, 2007).

3) Paradigms are model examples, serving as exemplars to researchers on how research is conducted in a specific field (Morgan, 2007).

In the social sciences, the concept 'paradigm' usually focusses on the philosophy of knowledge and includes metaphysical assumptions about ontology, epistemology, methodology and axiology (Morgan, 2014; Garrison, 1994), which links to the first interpretation by Morgan (2007) cited above.

Paradigms are marked by thinking about the nature of the world or reality (ontology); how knowledge about the world originates (epistemology), how reality is studied (methodology) (Plowright, 2011; Morgan, 2014), and about values (axiology) (Morgan, 2014). The relationship that assumptions of ontology and epistemology share with research methodology has been open to debate. While some researchers believe ontological and epistemological assumptions determine the research methodology (Shannon-Baker, 2016), Plowright (2001) is of the opinion that it is rather the other way round and that research methodology determines ontological and epistemological assumptions. As highlighted in section 5.2, the research questions guided the entire research process of this study. The research questions required the gathering of both quantitative and qualitative data and consequently a mixed-method design had to be chosen, together with a suitable paradigm. As MMR is usually associated with the pragmatic paradigm, and as I intended to investigate a real-life, practical problem, I considered the pragmatic paradigm for this study. It was therefore my research methodology, as suggested by Plowright (2001), that guided the decision to use the pragmatic paradigm.

The pragmatic paradigm often underpins mixed-methods studies (Biesta, 2010; Creswell, 2015; Greene & Hall, 2010; Johnson & Gray, 2010; Niglas, 2010), as it offers an appealing alternative to traditional paradigms (Shannon-Baker, 2016; Bishop, 2015). Pragmatism moves away from the dichotomy posed by traditional paradigms underpinning research. This dichotomy stems from the historical divide between the traditional positivist and the constructivist paradigms. Positivists believe reality to be 'out there', independent of the human mind and measurable by true, objective facts through quantitative methods (Plowright, 2011). On the opposite side of the spectrum, constructivists believe that reality is socially constructed (Plowright, 2011) and therefore mind-dependent (Plowright, 2011). According to the constructivists, knowledge is therefore not absolutely true, but rather socially constructed and mainly gathered through qualitative methods (Plowright, 2011). These traditional philosophies have been believed by purists to be incommensurable, arguing that the two paradigms cannot be mixed (Bishop, 2015; Morgan, 2014; Plowright, 2011). Pragmatism acknowledges the difference between these traditional philosophies, but does not consider them incommensurate (Bishop, 2015). Pragmatism rather advocates for a middle ground between these traditional paradigms by moving away from dichotomies (Johnson & Onwuegbuzie, 2004; Bishop, 2015). In so doing it provides an alternative paradigm well-suited for mixed-methods studies.

At a philosophical level, the pragmatic paradigm adopted by this study rejects either/or logic and absolute truths, and consequently rejects the concept of only one reality. While there is one world, individuals have their own interpretations of the world (Morgan, 2007) and consequently there are many different realities and similarly many forms of knowledge (Johnson, 2009). 'Truth' cannot be

determined conclusively (Subedi, 2016), as our interactions with the world are influenced by our experiences of the world, and those are ever evolving.

The work of the American philosopher, John Dewey, has been influential in guiding the pragmatic approach in the social sciences, especially in the field of education. Dewey was of the opinion that, to gain an understanding of the world, one needs to understand human experiences as reality, according to Dewey, is characterized by experiences (Biesta, 2010; Biesta & Burbules, 2003; Boisvert, 1998; Morgan, 2014). Experiences are "multi-dimensional, complicated, laden with memory, emotion and qualitative judgment" (Boisvert, 1998). Experiences occur "when human beings actively participate in transactions with other natural existences" (Garrison, 1994: 9) such as the environment. Humans are in a continuous process of acting upon the environment and in doing so bring about changes to the environment, to which the environment then responds (Biesta & Burbules, 2003; Biesta, 2010). The environment is equally multi-faceted and transcends the physical environment to include social and cultural constructs that influence the physical environment.

These transactions influence one's beliefs, which in turn influence actions. Previous actions are the source of our beliefs, as the consequences of these actions have a direct influence on one's beliefs (Biesta & Burbules, 2003; Biesta, 2010; Morgan, 2014). Humans and the environment thus exist in a cyclical interaction, with one always influencing the other. For Dewey, "experiences are always interpreted: one needs to interpret beliefs to generate actions and action in turn must be interpreted to generate beliefs. Beliefs must be interpreted to generate action, and action must be interpreted to generate beliefs" (Morgan, 2014: 1046). Reflection on one's beliefs and actions creates meaning. Because our beliefs and actions are social, so too are our experiences (Morgan, 2014) and consequently knowledge.

According to the pragmatic paradigm, the approach to gaining knowledge is not absolute (Biesta & Burbules, 2003; Biesta, 2010), but rather process oriented. Again I will draw on Dewey's philosophy. As argued above, knowledge is concerned with the occurrence of experience (Biesta & Burbules, 2010; Boisvert, 1998) and more specifically reflection on experience (Morgan, 2014; Boisvert, 1998). "It involves the process by which beliefs that have become problematic are examined and resolved through action" (Morgan, 2014: 1047). Scientific inquiry is a formal, structured type of inquiry aimed at identifying outcomes (actions) that can serve as the basis of changing the beliefs underlying these actions (Morgan, 2014), and ultimately improve human interaction with the environment. It is important to note that the pragmatist seeks knowledge for the sake of action - 'what will work' - (Garrison, 1994; Biesta, 2003; Boisvert, 1998), and not mere reflection (Boisvert, 1998) as knowledge serves as an instrument for action (Ormerod, 2006; Morgan, 2014). The pragmatic approach is therefore primarily concerned with the practical implications of research.

Plowright (2011: 185), argues that "knowledge and our understanding thereof, are neither static nor certain", and because the world constantly changes, so does what works (Plowright, 2011). The findings of scientific inquiry provide tentative solutions to the research problem being studied (Boisvert, 2011). Given the social nature of experience, knowledge in itself is social and contextual (Garrison, 1994; Morgan, 2007), and consequently so is scientific inquiry and its findings. As far as the transferability of research findings is concerned, the pragmatic approach views findings valuable in terms of the practical use of the acquired knowledge in different circumstances (Fishman, 1991; Morgan, 2007).

To the pragmatist, researchers are not merely observers or spectators. Instead, Dewey argued that researchers have an interest in the phenomenon being studied; they seek more information about the subject matter that make up the context within which they are immersed (Boisvert, 1998). The researcher as inquirer plays in important role in the construction of knowledge, and reflection on the role of the researcher in the research process is therefore important. According to pragmatism, the researcher has an intersubjective role in the research process (Morgan, 2007), in other words, the researcher could be both objective and subjective while studying the research problem (Subedi, 2016).

At a methodological level, pragmatism focusses on what works (Morgan, 2014; Ormerod, 2006) and regards the goal of research as providing practical solutions to social problems (Fishman, 1991; Ormerod, 2006). In deciding on matters related to the research process, the researcher should be guided by the practical and empirical consequences thereof (Johnson & Onwuegbuzie, 2004; Feilzer, 2010), that is, what would yield the most practically useful data. In doing so, pragmatism places the research problem as central and consequently the research problem guides the approaches and methods used to understand the problem (Creswell, 2015; Johnson & Onwuegbuzie, 2004). Research methods are chosen on the basis that they offer the best opportunities for answering the research question (Johnson & Onwuegbuzie, 2004; Bryman, 2006a, 2006b), which ultimately would yield the most socially useful knowledge (Feilzer, 2010; Morgan, 2017). In this study, the pragmatic paradigm provided me a set of assumptions about knowledge and scientific inquiry that underpinned the mixed-method design I employed.

5.4. RESEARCH DESIGN

The research design refers to the structured approach or process for answering the research questions (Berg, 2001; Morroni & Myer, 2007). It describes the 'architecture' of the study by determining the sampling, data collection methods as well as the data analysis techniques (Morroni & Myer, 2007). In deciding on a research design, I had to consider the purpose of the research, as the research design is primarily guided by the purpose of the study (Gorard, 2010; Plano Clark & Badiee, 2010). As the purpose of the study was to both explore and to understand, the study required both exploratory (that

would mainly generate quantitative data) and explanatory (that would mainly generate qualitative data) research questions. To answer these research questions, a mixed-method research design was adopted. MMR is deemed appropriate when the purpose of the study and the research question warrant a combination of quantitative and qualitative data (Creswell & Plano Clark, 2011; Plano Clark & Badiee, 2010; Teddlie & Tashakkori, 2010), which was the case for this study. The inclusion of both exploratory and explanatory questions was one of the primary reasons for employing a mixed-method design. The mixed-method design also enabled me to add breadth and depth to my understanding of the phenomenon (Johnson, Onwuegbuzie & Turner, 2007). I thus combined the strengths of the two types of data (quantitative and qualitative) to better understand the contribution that the peer mentoring has made in terms of the adjustment of the participating first-year students. In other words, I believed that the combination of the two data generating methods would be best for the objective of the study.

5.4.1. Defining Mixed-Method Research

There is general consensus that a core characteristic of MMR is that it combines elements of both qualitative and quantitative research methods (Creswell, 2010; Gorard, 2010; Ivankova & Kawamura, 2010; Johnson, Onwuegbuzie & Turner, 2007). How and to what extent these qualitative and quantitative research methods are combined, have been open to much debate, and consequently defining MMR has not been simple. Earlier developers in the field of MMR had diverse views on the definition. Scholars such as Alan Bryman and Janice Morse defined MMR in terms of methods used, while others such as John Creswell and Jennifer Greene defined it more broadly by including philosophical aspects to the definition (Leech, 2010).

After analyzing numerous definitions proposed by various researchers working in the field of MMR, Johnson et al. (2007: 123) offered the following broad definition of MMR: "MMR is a type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research methods (e.g. qualitative and quantitative viewpoints, data collection, analysis, inferences techniques) for the broad purposes of breadth and depth of understanding and corroboration." A similar definition was proposed by Creswell and Plano Clark (2007).

While Creswell and Plano Clark (2007) proposed a similar definition to that of Johnson et al. (2007), their definition was broader as it included philosophical assumptions. Creswell and Plano Clark (2007: 5) proposed that "mixed methods research is a research design with philosophical assumptions as well as methods of inquiry….it focusses on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems

than either method alone." The inclusion of philosophical issues has, however, been open to much debate, as some writers have argued that the mixing of qualitative and quantitative philosophical worldviews are incommensurable (Johnson, 2009; Onwuegbuzie & Leech, 2005).

Most definitions of MMR have, however, not extended to philosophical issues, but instead focused on the combination or integration of the two methods to better understand the research problem. According to Teddlie and Tashakkori (2003), MMR involves collecting, analyzing and integrating both quantitative and qualitative data in a single study for the purpose of gaining a better understanding of the research problem. Similarly, Tashakkori and Creswell (2007: 3) proposed MMR to be "research in which the investigator collects and analyzes data, integrates findings, and draws inferences using both qualitative and quantitative methods in a single study or a program of enquiry" (Tashakkori & Creswell, 2007: 3). More recent definitions support this definition proposed by Tashakkori and Creswell.

Creswell (2015: 2) articulates that MMR is "an approach to research in the social, behavioral, and health sciences in which the investigator gathers both quantitative (close-ended) and qualitative (open-ended) data, integrates the two, and then draws interpretations based on the combined strengths of both sets of data to understand the research problem." All three of these definitions underscore one of the core attributes of MMR: that the two forms of data are integrated (Johnson et al., 2007; Bryman, 2006a). Creswell's definition expands on this by further highlighting the rationale behind integrating the data, which is to improve one's understanding of the research problem. The integration of the two data sets always has a more comprehensive understanding of the research problem as the aim (Creswell & Tashakkori, 2007; Creswell, 2015). Integration is a central part of MMR (Guest, 2015; Tunarosa & Glynn, 2017) and is considered its greatest advantage (Tunarosa & Glynn, 2017). Given that Creswell's (2015) definition captures the core attributes that are generally agreed upon, this definition was adopted for purposes of this study, focusing on the value added by the integration of the two types of data in order to come to a deeper understanding of the research problem.

5.4.2. Strengths and challenges of MMR

As pointed out above, the research question is fundamental to MMR (Bryman, 2006b; Creswell & Tashakkori, 2007; Johnson & Onwuegbuzie, 2004). There should always be a clear rationale for choosing a mixed-method design (Bryman, 2006a, 2006b) and this rationale should primarily come from the research question(s). A mixed-method design should therefore be chosen on the basis of it offering the best way of answering the research questions (Johnson & Onwuegbuzie, 2004; Bryman 2006b). MMR combines the strengths of the quantitative and qualitative data (Creswell, 2015; Ivankova & Kawamura, 2010; Lieber & Weisner, 2010; Morgan, 1998) to incorporate both quantity

and meaning in the same research study (Morse, 2010), and in doing so the researcher can do a more holistic, comprehensive investigation into the research question (Creswell, 2015; Creswell & Tashakkori, 2007; Descombe, 2008; Greene, Caracelli & Graham, 1989; Teddlie & Tashakkori, 2010). In this study, this was definitely a major advantage, as I was able to identify general trends from the quantitative data as well as to capture participants' personal perspectives on their experience of the peer mentoring program (qualitative data). There are many other advantages to a mixed-method design.

MMR can minimize the weaknesses of both quantitative and qualitative data in a single study (Creswell & Plano Clark, 2011; Descombe, 2008; Johnson & Onwuegbuzie, 2004), positively contribute to the validity of studies (Creswell, 2015; Ivankova & Kawamura, 2010; Lieber & Weisner, 2010), and can enable the researcher to answer research questions or gain insights that cannot be achieved by mono-method studies (Creswell & Plano Clark, 2011; Bryman 2007). However, mixed-method designs also present some challenges.

Conducting an MMR study can be lengthy, as both data sets need to be gathered, analyzed and reported on. Researchers may not have the necessary time or resources for an MMR study (Bryman, 2007; Gorard, 2010; Creswell & Plano Clark, 2011). Researchers are also required to have appropriate skills in gathering and analyzing both quantitative and qualitative data, and due to the complexity of the design, implementation of the MMR study may be difficult (Bryman, 2007; Creswell, 2015; Creswell & Plano Clark, 2011). I certainly experienced the data collection process as lengthy, but I was patient during this process. I was also fortunate to have had some level of skill in gathering and analyzing both quantitative and qualitative data. The statistical analysis of the quantitative data I found challenging but I was able to utilize the skills of a statitician to help with this part of the study.

5.4.3. The mixed-method design used in the study

MMR is complex and the field has been marked by various designs and frameworks proposed for doing MMR. Given the importance of integration in MMR, more specific frameworks for integration are evolving (Fetters & Molina-Azorin, 2017; Wheeldon, 2010). Mixed-method research designs remain at the forefront of the current literature on MMR, as researchers continue to propose alternative design frameworks that would enable more sophisticated ways of integration (Nastasi, Hitchcock & Brown, 2010; Schoonenboom, 2018; Turner, Cardinal & Burton, 2017). To date, four designs are commonly used: the triangulation design, the embedded design, the explanatory design and the exploratory design (Creswell, 2015; Creswell & Plano Clark, 2007). Different designs serve different research purposes (Subedi, 2016) and design choices should be based on what would

generate the best data to answer the research questions (Griffin & Museus, 2011). Therefore the purpose of my study and the research questions guided the specific mixed-method design employed. In light of the purpose of my study and the research questions, I chose the explanatory sequential mixed-method design.

The purpose of my research was to do an investigation of the outcomes of a peer mentoring program. The research questions had both quantitative and qualitative components and the study aimed at capturing both process and outcome. The explanatory sequential mixed-method design was well suited for the purposes of the investigation, as illustrated in Figure 5.2 below. As illustrated, this design is characterized by the consecutive collection of two data strands. Quantitative data was first collected and analyzed, followed by the collection and analysis of qualitative data. The rationale behind the second strand of data was to explain the quantitative data (from the first strand) in more depth (Creswell, 2015; Creswell & Plano Clark, 2011; Ivankova, Creswell & Stick, 2006). While this design is often marked by a bigger quantitative phase, followed by a smaller qualitative one (Doyle, Brady & Byrne, 2016), both data strands received equal statusin this study, as they were equally significant in answering the research questions of the study. Status refers to the degree of priority or dominance given to quantitative or qualitative methods in reaching the objective of the study (Greene, 2008; Greene et al., 1989).The integration of these data strands was central for the investigation.

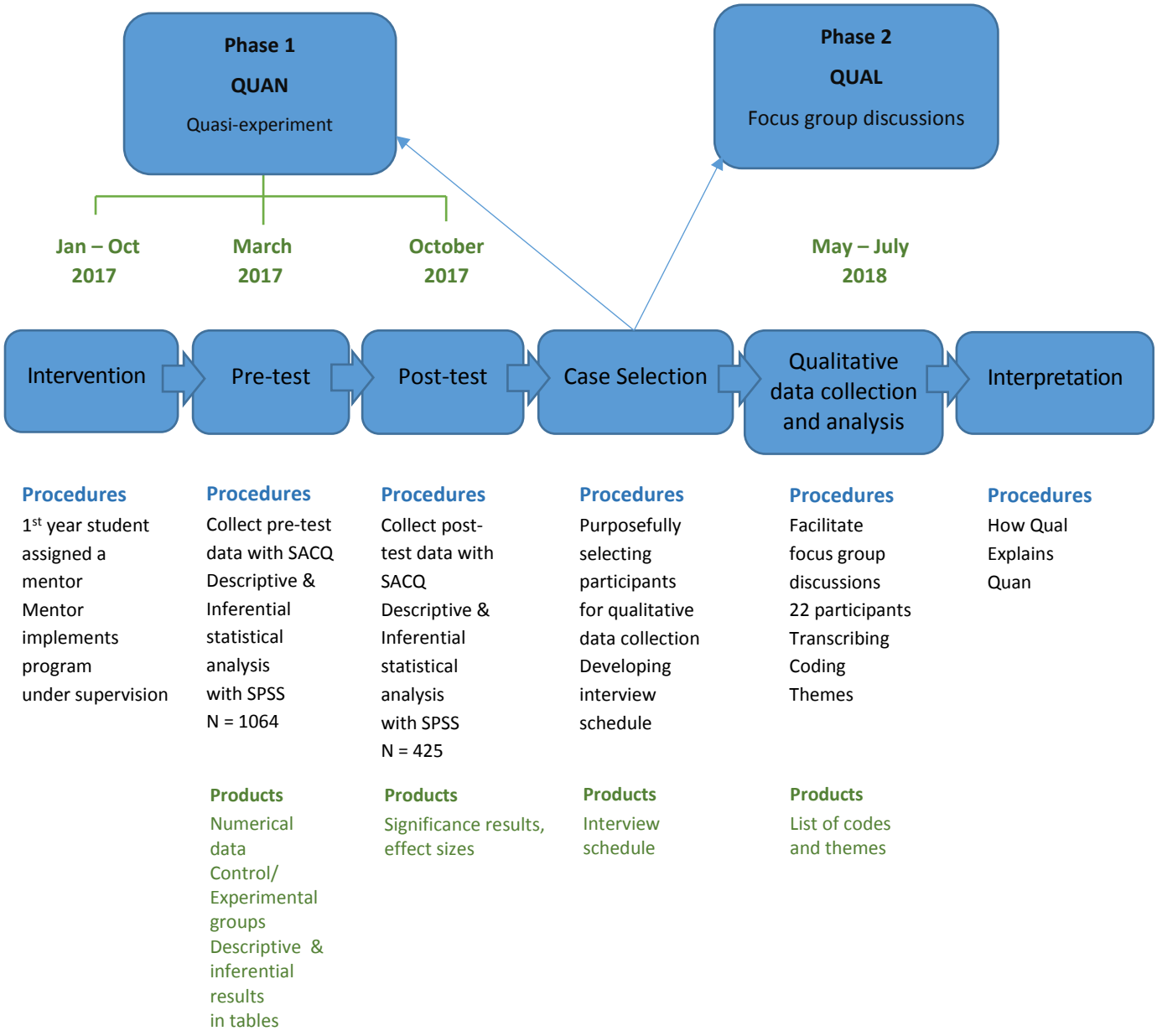


Figure 5.2: The explanatory sequential mixed-method design

Typically, in a mixed-method explanatory sequential design, the two phases are connected when the selection of the participants in the qualitative phase has been done, as this selection is informed by the results from the previous phase (Creswell, 2015). This is what I did in my study, as illustrated in Figure 5.2 above. I further connected the two data sets when I constructed the interview schedule for phase 2, as the results from phase 1 also guided the development of my interview schedule. The explanatory sequential mixed-method design provided the structure on how to do the study. However, the study had a very specific purpose, namely an investigaation of the outcomes, and the mixed-method design did not offer specific guidance on this. The evaluative nature of the study required this

purpose of the study to be included in the study design, and consequently an evaluation sub-design was deemed to be suitable.

5.4.4. Evaluation as the sub-design

Defined broadly, evaluation research is a purposeful activity aimed at providing findings about the effectiveness of social programs (Rossi, Freeman & Lipsey, 2004). Designing and implementing a social program is difficult, and feedback is required on the effectiveness of such programs to make policy/funding decisions, to make adjustments/improvements to the program itself or to hold the program accountable (Babbie & Mouton, 2001; Krathwohl, 1993; Rossi et al., 2004). How the researcher goes about doing the evaluation is influenced by the purpose of the evaluation. The purpose of the evaluation should therefore be clear, as it plays an important role in the evaluation process.

5.4.4.1. The purpose and goal of the evaluation

The purpose of evaluation studies distinguishes it from more traditional social research (Babbie & Mertens & McLaughlin, 2004; Mouton, 2001). Evaluation studies are conducted specifically to provide feedback about social programs (Babbie & Mouton, 2001; Krathwohl, 1993), which in turn inform decisions about these programs within the specific context in which they occur (Mertens & McLaughlin, 2004). Evaluations are therefore intended to provide stakeholders with valuable feedback on the program being evaluated (Mertens & McLaughlin, 2004; Rossi et al., 2004; Web Center for Social Research Methods, 2017), feedback that will ultimately help to sustain the program (Chen 2015), to improve the program or to determine whether or not to discontinue, continue or expand the program (Krathwohl, 1993; Rossi et al., 2004). Evaluations are done at different stages of the program and feedback can be provided at different levels of the program (Chen, 2015).

The stage of the program has an influence on the purpose of the evaluation. Some evaluations provide feedback on the earlier stages of the program. These include evaluations that provide feedback on the design or implementation of the program. Other evaluations focus more on gaining feedback after a period of implementation and include the outcomes, impact and efficiency of the program (Babbie & Mouton, 1999; Rossi et al., 2004; Web Center for Social Research Methods, 2017). This study was conducted after four years of implementation of the program; hence the purpose of this particular study was to gain feedback on whether or not the program was reaching its intended outcomes. With this goal in mind, I had to choose an appropriate evaluation design that would yield the best results for answering the research questions.

5.4.5. Type of evaluation employed by the study

Scriven conceptualised two forms of evaluation: formative and summative evaluations, distinguished on the basis of the role the evaluation plays (Scriven, 1991). Since then this distinction has become a primary one in the literature on evaluation studies (Babbie & Mouton, 2001; Chen, 2015; Chelimsky, 2007; Cook, 2007; Krathwohl, 1993; Rossi et al., 2004). Formative evaluations are improvement oriented. They are intended to support the process of improving the program and are usually done in the earlier stages of program design and implementation (Babbie & Mouton, 2001; Chen, 2015; Rossi et al., 2004). Summative evaluations, on the other hand, are judgment orientated (Babbie & Mouton, 2001; Chen, 2015; Scriven, 1991) as the evaluator seeks to determine the worth of the program (Scriven, 1999) by measuring the effects or outcomes of a program (Babbie & Mouton, 2001; Rossi et al., 2004).

Even though this study focused on the outcomes of the welcoming program, a formative evaluation was chosen as sub-design, as the study aimed to improve program implementation. Some authors have further extended the distinction between formative and summative studies and have identified more specific evaluation designs. Based on these designs, this study can be typified as an outcome evaluation, as sub-design. Outcome evaluations aim to establish whether or not an intervention has caused certain effects (Babbie & Mouton, 2001; Rossi et al., 2004), which is what this study did. The goal was to determine whether the peer mentoring program was meeting its intended goal of contributing to adjustment of participating first-year students. Once I had chosen my evaluation sub-design, I had to decide on a specific strategy for doing the evaluation.

Different strategies are employed to do evaluation studies. I needed to decide on the specific strategies to use for my mixed-method sequential-explanatory design. In making my decisions, I had to consider what would work best for my evaluation sub-design. True experimental designs are highly recommended for evaluation studies (Bamberger, Rao & Woolcock, 2010; Cook, 1991; Rossi et al., 2004). However, these designs are often impractical to implement due to the difficulties around random assignment (Babbie & Mouton, 2001; Cook, 1991; Flay, 1986). In the absence of random assignment, researchers opt for quasi-experimental designs as a second best option (Bamberger et al., 2010; Babbie & Mouton, 2001; Gribbons & Herman, 1997). In the field of education specifically, experimental designs are often difficult to implement (Chen, 2015; Gribbons & Herman, 1997) and consequently quasi-experimental designs are commonly employed (Gribbons & Herman, 1997). Other factors such as ethical considerations may also play a role in the chosen design (Gorard, 2010; Rossi et al., 2004). For this study, random assignment was not possible due to ethical reasons (see section 5.10 below) and I opted for a quasi-experiment as one of the data gathering strategies.

The quasi-experimental pretest-posttest survey yielded findings on the outcome (whether the program contributed to the adjustment of participating students), but a qualitative method to delve deeper and to investigate how it contributed to the adjustment of participating students was still needed. To achieve the latter, the survey was followed by focus group discussions. In the explanatory sequential design, the second data strand is used to explain the initial findings and therefore builds on the first data strand (Creswell & Plano Clark, 2011; Creswell, 2015). Focus group discussions were employed to explain the findings from the survey. In the final phases of the explanatory sequential design, inferences are drawn on how the qualitative results help to explain the quantitative results (Creswell, 2015). This will be discussed in Chapters 6 and 7.

5.5. TARGET POPULATION

A clearly defined target population is an important condition for an effective research study. Joubert and Katzenellenbogen (2007) posit that the target population should be clearly defined in terms of person, place and time and that any inclusion/exclusion criteria should be stated. For the purposes of this study, first time entering first-year students at SU were the target population. More specifically, the first-year students from the 2017 cohort of registered students at the University (a total of 5024) were the target population. Although the peer mentoring program was offered at both the Stellenbosch and Tygerberg campuses, exclusion criteria with regard to the Tygerberg campus were applied. The study only included students registered on the main campus (Stellenbosch). This decision was based on the prominence of a similar program on Tygerberg campus, the MenTut program, and the overlapping between the MenTut program and the peer mentoring program. The study included students living in university residences and those living in private accommodation.

5.6. DATA COLLECTION PROCESS

The data collection process was sequential and involved two data collection phases. During the first phase, the quantitative data was gathered through a quasi-experimental design. This was followed by focus group discussions in phase 2, which explored the results of the data from the quasi-experimental design of the first phase. Focus group discussions were facilitated with students in the experimental group to gain a deeper understanding of how they had experienced the peer mentoring program during their first year.

5.6.1. Quantitative data collection (Phase 1)

I used the quasi-experimental pretest-posttest non-equivalent groups design, to compare the adjustment of students who participated in the peer mentoring program (the experimental group) with the adjustment of students who did not participate in the program (control group). The quasi-experimental design aimed at gathering exploratory data on whether or not students who participated

in the peer mentoring program experienced better adjustment than those students who did not participate in the study. The following hypothesis and variables guided this design:

The null hypothesis: There is no difference in the adjustment of the control group and experimental group in the post-test.

The alternative hypothesis: There is a statistically significant difference in adjustment between the control group and experimental groups.

Dependent variable: Adjustment

Independent variable: Peer mentoring program

Constructing the control and experimental groups was challenging. Given the fact that all students are assigned to the program upon their arrival on campus, some level of involvement in the program was already implied. In light of this, I decided on separating the control group from the experimental group on the basis of the extent of their involvement in the rogram. Question 10 was included in the questionnaire (see Addendum 4) which stated *"How often did you have contact with your mentor/mentor group?* The following options were given:

1) On a weekly basis.
2) Once every two weeks.
3) Once a month.
4) I only had contact during the welcoming period.
5) I have not participated in the mentor program.

All participants who indicated one of the first three options were grouped in the experimental group, while the rest of the students formed the control group. The experimental group therefore comprised of all the participants who reported that they had contact with their mentors at least once a month during their first year. The control group on the other hand comprised of students who either had had no involvement in the program or who had only participated during the welcoming period. I decided on this criterion, as most students are involved in the peer mentoring program during the welcoming period due to the nature of the welcoming program. When first-year students arrive for the welcoming period, they are assigned to a mentor and they interact with their mentor and other mentees (first-year peers) as part of the welcoming period. The welcoming program is a structured program of ten days and it is marked by active involvement of most mentors and many first-year students. After the welcoming period, however, the extent of involvement differs for both mentors and first-year students. Once I had finalized my hypothesis, the variables and criteria for the control and experimental groups, I proceeded to measure the adjustment of the two groups, both pre-test and post-

test[1]. The Student Adjustment to College Questionnaire (SACQ) was used as measurement instrument.

5.6.1.1. Conceptualization and measurement adjustment

For the purposes of this study, 'adjustment' was conceptualized according to the definition of Baker and Siryk (2015). Baker and Siryk understood adjustment to university to be multifaceted. The transition from school to the university environment requires students to adjust to a variety of demands which include social, personal, academic and institutional facets. According to these authors, adjustment is defined as the way in which the student manages the demands of the university environment. The measurement instrument which they developed, namely SACQ, measures how well students have managed the demands within the university environment – in all its facets.

5.6.1.2. Measuring adjustment with the SACQ

The SACQ is a standardized instrument constructed by Baker and Siryk in 1989. This measurement instrument was used to measure adjustment of the experimental and control groups, both pre- and post-test. The SACQ is a 67-item self-report questionnaire that has been conceptualized according to the above definition on adjustment and is based on four subscales of adjustment, namely academic, social, personal-emotional and attachment (Baker & Siryk, 2015). The instrument also yields a full-scale score for overall adjustment to university.

5.6.1.3. Scales of the SACQ

The SACQ has four sub-scales, each measuring one of the facets or dimensions of adjustment to university. The academic subscale measures how well students cope with the various educational demands. Social adjustment measures the student's ability to manage interpersonal experiences such as making friends and interacting in groups. Personal-emotional adjustment measures the degree of psychological distress experienced in the university environment and the experience of somatic symptoms of distress. Lastly, the attachment subscale measures the extent to which the student feels committed to the university as institution. The questionnaire is intended to give a sense of the student's overall adjustment together with more specific facets of adjustment. This can give a good indication of which facets of adjustment the students are coping with, while also highlighting areas that pose a challenge (Baker & Siryk, 2015). Its multifaceted approach to measuring adjustment to university was one of the primary reasons for using the SACQ as measurement instrument in this study. Other reasons included, amongst others, the fact that it was a widely used standardized instrument whose reliability and validity had been tested and proven.

[1] In this study the pre- and post-test refers to the pre- and post-intervention (with the peer mentoring being the intervention).

5.6.1.4. Reliability of the SACQ sub-scales

When testing the reliability of the items of the questionnaire, the developers found coefficient alpha values to be greater than 0.80 for all items (Baker & Siryk, 2015), which suggests high reliability in measuring the intended construct, that is adjustment, for individual items on the scale. Once I had decided on the measuring instrument, I was able to proceed to the data collection for the first phase.

5.6.1.5. Sampling and administration of the SACQ

Prior to the administration of the SACQ, I conducted a pilot study. A pilot study measures the precision of the measuring instrument, and in doing so it can positively contribute to the validity of research findings (Myer & Karim, 2007). Pilot studies are used to ensure the readability and coherence of an instrument and to ensure that pitfalls in the construction are avoided (Frankfort-Nachmias & Nachmias, 1996). Babbie and Mouton (2001) underscore the importance of a pilot study where multiple language or cultural groups are included in a study. Given the diversity of first-year students at SU, it was important for me to do a pilot study. The SACQ has also not been standardized for a South African population and I wanted to ensure that the instrument items were clear and understood by all participants. Some terminology in the SACQ was not appropriate to the context (e.g. for the pre-test the word 'examinations' was changed to 'early assessments'). Permission was obtained from the licensing body[2] of the SACQ to make minor changes to the wording where needed. The students in the pilot study did not raise any concerns with regard to comprehension or instances of ambiguity in the questionnaire, and the pilot version remained unchanged for the pre-test (see Addendum 3). I then proceeded with the sampling and administration of the questionnaire.

No sampling strategy was employed. Often researchers do not have access to the total population and are hence required to use a sampling strategy to gain a sample (Cohen, Manion & Morrison, 2007). For this study, access to the entire population did not pose any challenge and I was able to distribute the SACQ to the total population, i.e. all registered first time entering first-year students on the Stellenbosch campus. The Division Information Governance of SU sent the student numbers of the relevant students to the staff member administering the web-based SunSurvey[3] of the University, who then loaded their details onto SunSurvey where it reflected no identifying details. The completion of the questionnaire was done anonymously, hence I did not work with any identifying information

[2] Licencing fees and permission for changes to the SACQ was negotiated with the Western Psychological Services (WPS) who is the licencing body for the instrument.

[3] SunSurvey is a web-based e-Survey service that offers postgraduate students and academic staff of SU the opportunity to do online surveys.

myself nor did any identifying information reflect on SunSurvey when I accessed the completed questionnaires.

For the pre-test, the questionnaire was administered in March 2017, shortly after early assessment[4]. I intentionally chose this time-frame as the measurement instrument, specifically the scale measuring academic adjustment, required some exposure to tests or assignments. This did, however, mean that the pre-test results were not obtained immediately after registration during the first year. A total of

1 064 respondents completed the pre-test version of the SACQ from 5024 distributed surveys, giving a response rate of 21.18%.

The questionnaire was re-administered in October 2017. This time-frame was again intentionally selected: it marked the end of the fourth term of classes and students were just about to start their end of year examinations. I was of the opinion that administering the SACQ at that stage would give students the opportunity to reflect and respond on their adjustment during the course of their entire first year. A total of 425 respondents completed the post-test version, giving a response rate of 8.46%. This response rate was much lower than the response rate in March. This was likely influenced by the time of the year that the questionnaire was administered. Students were about to start their end of year examinations and may have been focusing on their academics. At that stage of the year adjusting to campus was no longer a pertinent issue for most students, compared to March, which may have affected the lower interest levels in answering questionnaires pertaining to their adjustment at that particular time. The demographics of both samples reflected the heterogeneity in the demographics of the target population, as will be discussed in the next chapter. I then proceeded to the second phase of the data collection.

5.6.2. Qualitative data collection (phase 2)

As alluded to in section 4.3, this study employed a sequential explanatory mixed-method design. This design entailed the first (quantitative) phase of the study being followed by a qualitative data collection phase, aimed at explaining the results from the quantitative phase. For the purposes of the study, I decided to use focus group discussions as the qualitative data collection method to explore the quantitative data in more depth. Five focus group discussion were facitated that included a total of 22 focus group participants.

[4] Early assessment refers to the first set of academic assessments undertaken by first-year students. These assessments serve as an early warning system. Possible at-risk students are identified on the basis of their performance in these academic assessments and they are then referred to the appropriate support structures.

5.6.3. Rationale for including focus groups

I chose focus group discussions primarily because of the interactive nature of this method. As stated by Creswell (1998), focus group discussions are ideal in contexts where the interaction amongst participants is likely to yield the best information. This method enables discussion to develop, as responses by one participant might trigger reflection by another (Arksey & Knight, 1999; Morgan, 1997) and in doing so the group as a whole creates meaning, instead of only individuals (Morgan, 1997; Babbie & Mouton, 2001). This was appropriate for the purposes of my study. I facilitated focus group discussion with students from the experimental group. In these focus group discussions, I wanted the participants to reflect on their experiences of the peer mentoring program, as well as on future recommendations for the program. I believed that the interactive group setting would enable the best data to emerge as the discussions would trigger reflections that might not have emerged in an individual interview setting.

While focus group discussions have many advantages, a major potential challenge posed by this method is the group dynamics during the interview. Care needs to be taken that all participants participate and that the interview is not dominated by only one or a few participants. This requires skill on the part of the facilitator (Creswell, 1998; Arksey & Knight, 1999). As facilitator of the focus group discussions, I was comfortable with this method as I had extensive experience in the facilitation of various group discussions and in managing difficult group dynamics. Going into the focus group discussions I was therefore conscious of the possible challenges that could emerge. Given my role as residential head, I also had to reflect on the effect that I, as facilitator, could potentially have on the data being gathered.

Barbour (2011) posits that the persona of the facilitator impacts on the form and content of data elicited in the focus group discussion. As a residential head working for the Centre for Student Communities (CSC), I had some exposure to and background knowledge of the program. While this familiarity helped me in understanding the operations of the program, which proved to be valuable during the discussions, I had to be cautious not to allow this to steer the discussions. Barbour (2011) further argues that the purpose of the focus group discussions is to explore the participants' meaning-making in depth. The participants needed to share what was significant to them and I had to caution against not allowing any pre-conceived ideas to guide the conversation. I did not, however, have many preconceived ideas based on my personal experience of the program. From my personal experience I could gather that the implementation of the program posed a challenge. The nature of these challenges and how they needed to be addressed was nonetheless unknown to me and I was eager to learn from the participants during the focus group discussions.

5.6.4. Sampling

Sampling is a very significant part of the research process as it has an impact on the quality of the data gathered (Barbour, 2011; Arksey & Knight, 1999). I used the purposive sampling strategy, as the requirements for participation in the focus group discussions were very specific. The process of sampling was however a challenging one. I initially formulated the following criteria for participation in the focus group discussions:

1) Students who were in their first year of registration on the Stellenbosch campus in 2017.
2) Students who participated in the peer mentoring program beyond the welcoming period.
3) Students who had completed at least one of the questionnaires (SACQ) administered in 2017.

The third criterion posed a challenge: some students were unable to recall whether or not they had completed one of the questionnaires in the previous year and, given the anonymity of their questionnaire responses, I was unable to identify the students to purposefully select them. In light of these challenges I had to discard the third criterion. I also had to bear in mind that the purpose of the sampling was to reflect the diversity in the target population (Barbour, 2011) and as such I had to ensure diversity in terms of demographics such as race and gender in the sample. Gatekeepers can play an important role in recruiting participants (Barbour, 2011). To assist me with the recruitment, I sent an e-mail to all the mentors from the previous year, requesting them to inform their previous mentees of the focus group discussions. I also contacted the residential heads, PSO coordinators, head mentors and primarii (head students) of all the University residences and PSOs to distribute the details of the focus group discussions in their environments.

5.6.5. The focus group interviews

The focus group discussions were conducted according to a semi-structured format. An interview schedule (see Addendum 5) was constructed and this guided the conversation. This was, however, merely a guide. It was important that the participants should be able to freely share their experiences of the peer mentoring program. I was therefore cautious of not allowing the interview schedule to obstruct the free flow of the discussions, but to rather use it as a guide as needed. As the facilitator of the focus groups, I did not experience any challenges with the group dynamics. All participants shared openly and they themselves gained new insights from listening to one another. Prior to starting the interviews, the purpose of the research as well as the process of the interviews were explained to participants. Their written consent was also obtained (see Addendum 6 for the consent form). All focus group discussions were audiotaped, transcribed verbatim and subsequently analyzed.

5.7. DATA ANALYSIS PROCESS

Data analysis involves the process of applying a set of tools to summarize and interpret the data and to link the various components with one another (Bamberger et al., 2010). In the case of this mixed-method study, the quantitative and qualitative data sets were analyzed separately. Quantitative data sets provide data on magnitude and distribution effects of the phenomenon, while qualitative data gave more in-depth descriptions and perspectives (Bamberger et al., 2010). Two quantitative data sets were gathered from the quasi-experiment, which were then followed by a third data set which was gathered from the focus group discussions. These data sets were analyzed individually, in a sequential order.

5.7.1. Analysis of the quantitative data

Two sets of quantitative data were gathered during the quasi-experiment: one as a pre-test data set and the other as a post-test one. The Statistical Program for the Social Sciences (SPSS) was used and the data analysis was done with the support of a statistician[5]. Numerous processes were involved in the statistical analysis of the quantitative data. Data checking was done first, as this allowed for any errors such as missing or odd values to be identified (Joubert, 2007a). Once this was done, only completed questionnaires were analyzed. For the pre-test a total of 1064 completed questionnaires were analyzed, and 425 for the post-test. Once the data had been checked, the quality of scores from the SACQ was examined to assess the reliability of the instrument itself (see Addendum 7). As can be seen from Addendum 7, the Cohen D calculations were >.80 for all the adjustment subscales as well as for the total adjustment score, indicating an acceptable reliability score.

Upon completion of the validity testing of the instrument, descriptive and inferential statistical analyses were employed. A descriptive analysis was done to determine the general trends in the data. This commonly involves analysis of the mean, standard deviation and variance of responses to each item of an instrument (Campbell & Stanley, 1963; Creswell & Plano Clark, 2011; Joubert, 2007b). Cross-tabulations and frequency distributions were done for demographic information as well as for participants' responses to the items of the SACQ scales. A distribution of the demographic variables was done for the pre- and for the post-test, and in both instances gender, race, first language, nationality, living environment, origin, educational backgrounds of parents, and grade 12 examination results were included. In addition to this, frequency distributions for participation in the

[5] One of the statisticians from the Department of Statistical and Actuarial Sciences at Stellenbosch University assisted with the quantitative data analysis for both the pre-test and post-test data sets.

peer mentoring program were included. The post-test had an additional variable, i.e. previous participation in the program. Descriptive statistics were followed with inferential statistics.

The inferential statistics allowed measurement of the differences between variables. In this study I wanted to determine whether there was a difference in adjustment between the two groups over time. My null hypothesis was that there would be no significant change in adjustment between the control group and experimental group in the post-test results. Analysis of variance was performed on the pre-test and post-test adjustment scores. For the pre-test, the differences in adjustment between the two groups were analysed. In the post-test the changes in the adjustment of these two groups, over time, were compared. In addition to testing for statistical significance, Cohen D effect sizes were also calculated to further explore any difference in adjustment over time between the groups. Analysis of variance was also used to determine if the demographic variables had any influence on the differences between the groups and over time. These results informed the interview schedule for focus group discussions that explored the results from the quantitative data more deeply.

5.7.2. Analysis of the qualitative data

Upon completion of the focus groups discussions, the digital recordings were transcribed and analyzed. It is recommended that the researcher first explore the data by reading through all the transcripts to get an overall sense of the data (Creswell, 1998; Creswell & Plano Clark, 2011), which is what I did. I also noted emerging themes as I was reading the transcripts. I then proceeded with the coding of the data. Coding is a core feature in the analysis of qualitative data and refers to the process of labelling ideas so that they reflect increasingly broader perspectives (Creswell & Plano Clark, 2011; Saldana, 2013). This process involves dividing the text into smaller units, coding and re-coding them and then grouping the codes into categories and themes (Cohen et al., 2007; Creswell & Plano Clark, 2001; Saldana, 2013). I employed content analysis to code the qualitative data. When coding the data, I looked for key points made by participants (Fereday & Muir, 2006) and the meaning behind these points as the meaning of the content is important in content analysis (Guthrie, Petty, Yongvanich & Ricceri, 2004; Cohen et al., 2007). The research questions guided me, but as stated by White and Marsh (2006) other potential themes and questions arose and I had to allow for this. Braun and Clarke (2006) underscore the importance of reflexivity of the researcher during the process of content analysis and I thus had to reflect throughout the process to ensure that the codes reflected the participants' experiences and that I accurately captured the meaning of what the participants were saying.

5.8. VALIDITY CONSIDERATIONS

During the course of this study, I had to reflect on any factors that could adversely affect the validity of my research findings. A major consideration was the measurement instrument I had chosen to measure adjustment. The quality of the measurement instrument plays an important role in the validity of the study, and consequently many researchers prefer standardized instruments that had been used and tested (Myer & Karim, 2007). It is for this reason that I chose the SACQ as measuring instrument to measure adjustment. Creswell and Plano Clark (2011) argue that a primary indicator of validity in quantitative data is the level of content validity, criterion-validity or the construct validity of the instrument being used. The validity of the SACQ had been tested by its developers and others, who demonstrated validity through statistically significant correlations between the SACQ subscales and a variety of measures such as academic motivation, depression, attrition etc. (Baker & Siryk, 2015).

Another important consideration was the threat to validity in the chosen design. The quality of the research design is important for the validity of mixed-method designs (Curry, Nembhard & Bradley, 2009; Dellinger & Leech, 2007). Minimizing threats to validity in the design of the study is an important consideration (Curry et al., 2009; Creswell & Plano Clark, 2011; Dellinger & Leech, 2007), especially when gathering quantitative data (Creswell & Plano Clark, 2011). This posed a challenge for me, given that I was unable to employ random assignment to the quasi-experiment in phase 1. As no random assignment was done, not all of the threats to internal validity were removed (Chen, 2015). The pre-test-post-test non-equivalent comparison groups design does, according to Chen (2015), remove the majority of threats to internal validity, making it one of the stronger quasi-experiments. In this study I therefore used one of the stronger quasi-experimental designs.

5.9. ETHICAL CONSIDERATIONS

The ethical concerns in research require constant awareness and sensitivity on the part of the researcher, and while many ethical dilemmas arise from procedural ethics, ethical awareness beyond the procedural domain is equally important (Cohen et al., 2007). Procedurally I was confronted with an ethical dilemma with regard to the research design of the quantitative phase of the research process. As mentioned earlier in section 5.6.1, all students were assigned a mentor during the welcoming period and thus they were all afforded the opportunity to benefit from participation in the program. Random assignment (for a true experimental design) would have required a comparison group that was not involved in the program at all. In other words, having a randomized control group would have meant that the researcher intentionally withheld participation in the program from students to form a control group, which raised major ethical concerns. Such a design would most likely not have received ethical clearance from the Research Ethics Committee of SU. I therefore opted for a quasi-

experiment as part of my mixed-method design. My role as researcher was another major ethical consideration.

The research process is a complex one that requires reflection and engagement on the part of the researcher (Merciera & Merciera, 2013; Hesse-Bieber, 2015). My role as researcher required much reflection and ethical sensitivity. In the pragmatic paradigm that guided this study, researchers' values play a major role in conducting the research and drawing conclusions from their studies (Subedi, 2016; Hesse-Bieber, 2015): the researcher could be both subjective and objective (Morgan, 2007). The fact that I was an employee of the University made me an insider researcher and this called for high levels of sensitivity regarding my values and role. Chen (2015) distinguishes between internal evaluators (employees of the organization) and external evaluators (from outside the organization). As an employee of the University, especially as a residential head, I have had exposure to the Be Well Peer Mentoring Program. This afforded me the opportunity to gain some familiarity with the program. Familiarity with the program being evaluated could be of great benefit to the evaluator and is recommended (Chen, 2015). However, this familiarity could also lead to some bias towards the program, which may have an impact on the research process. As a researcher I therefore had to reflect on my own pre-conceived views and assumptions and I had to maintain objectivity as best as possible.

Being an insider researcher also came with the challenge of navigating the political context of the program. Evaluation studies always occur within a political environment with different stakeholders having a vested interest in the findings of the evaluation. Tyler (1991) articulates the difficulties evaluators might experience in maintaining objectivity and honesty when doing an evaluation in a context where program developers/administers believe the program to be an excellent one that is producing excellent results. As an insider researcher, working within the Centre for Student Communities, this was an issue I was aware of. I knew that I had to report the research findings to my colleagues who may have different expectations of the findings. While doing the research I experienced some anxiety over the nature of my findings and having to report these to my colleagues. After being reflexive I managed to let go of this anxiety as my colleagues respected the research process and they were looking forward to the outcomes of the study, in order to improve implementation of the program as needed. The integrity of the research was my primary priority and I was guided by the fact that the findings of the study would be of practical use for stakeholders, irrespective of what these findings would be. Krathwohl (1993) summarizes this well when stating that the knowledge gained from evaluations serves as a tool for more effective management of programs. This guided me in making decisions that would ultimately yield results to the benefit of the management and implementation of the program.

5.10. CONCLUSION

The purpose of the study was to investigate the outcomes of the Be Well Peer Mentoring Program offered to first-year students at SU. The study specifically sought to evaluate if and how participation in the program benefited participating students in terms of their adjustment during the first year. After four years of implementation of the program, this study was done in 2017 - being the first scientific enquiry into the outcomes of the program. The purpose of the study was central throughout the research process. It guided the decision to employ an explanatory sequential mixed-method design and evaluation sub-design. These designs provided guidance for the collection and analysis of the data. Mixed-method designs can be complex, but once I had chosen these designs I was able to identify the methods that would best answer my research question.

The purpose of the research guided all the decisions throughout the research process. I wanted the study to be of practical use to the institution and one that would yield valuable insights on peer mentoring that could benefit other HEIs: a study that would be of practical use. While it was important to gain data on the outcomes, it was equally important to gain an understanding of the process that had influenced the outcomes. I was not seeking an absolute truth, but rather an understanding of how students experienced the peer mentoring program and how their interactions with the peer mentoring program had influenced their experiences of the program.

From a pragmatist perspective, knowledge acquisition is a process that requires continuous reflection, even on the role and values of the researcher. I therefore had to continuously reflect on my decisions, the research results as they emerged and the challenges as they confronted me in order to ensure that decisions be made that would yield practically relevant data which would inform future actions pertaining to the implementation of the program. I found that the explanatory sequential mixed-method design was well suited for this goal, as the first phase highlighted trends that I was able to explore in more depth during focus group discussions. I do believe that the steps taken during the research process have helped me to achieve my goal as a pragmatic researcher who sought to find practical solutions to social problems, and that the knowledge gained from this study has the potential to positively influence the future outcomes of this program and similar programs at other HEIs. The next chapter will discuss the research findings.

CHAPTER 6
RESEARCH RESULTS

6.1. INTRODUCTION

In the previous chapter, I outlined the research methodology of the study. I explained the purpose and aims of the study, the paradigm and approach as well as the research design. The data collection and analysis procedures were also explained. In this chapter, I now present the results that the data has delivered and a discussion thereof. The aim of the study was two-fold. Firstly, it aimed to determine whether there was a significant difference between the adjustment of first-year students who participated in the peer mentoring program (experimental group), and those who did not (control group). Secondly, it sought to understand how participation in the peer mentoring program contributed to students' adjustment, if at all. The study therefore aimed to both explore and explain the contribution that the peer mentoring program has made in terms of the adjustment of participating students. For this purpose a mixed-method approach was deemed appropriate.

The mixed-method approach employed in this study collected data in two phases. Quantitative data was collected in the quasi-experimental design during the first phase of the study. The measurement instrument, the Student Adaptation to College Questionnaire (SACQ), of Baker and Syrik (2015), was administered twice: to the pre-test sample in April 2017 and to the post-test sample in October 2017. This phase of the data collection specifically aimed to determine whether there was a statistically significant difference, over time, in adjustment between the two groups. As will be discussed below, the results did not show a statistically significant difference in the adjustment of the experimental and control groups during the post-test. The study did, however, observe that the adjustment of the experimental group increased in the post-test, while the adjustment of the control group declined, but these differences were not statistically significant.

To understand the results from the quantitative data better, focus group discussions were conducted during the second phase of the data collection process. These focus group discussions explored the themes that emerged from the first phase of data collection with the goal of explaining the initial results from the quantitative data. The lack of statistical significance in these findings made it even more important for me to explore these results in more depth, as the results suggested that the program outcomes had not been met. The focus group discussions yielded valuable insights on why outcomes had not been met, as well as areas within the peer mentoring program that needed to be improved, in order for the program to meet its outcomes in the future.

In this chapter I present the results yielded from the data collected, as well as a discussion thereof. I present the data from the two phases consecutively. I start with the results from the quantitative data that were gathered with the SACQ, followed by the results from qualitative data gathered during the focus group discussions. I conclude the chapter with an interpretation of the results within Tinto's theoretical framework, and I propose a model for peer mentoring programs.

6.2. RESULTS FROM THE QUANTITATIVE DATA (PHASE 1)

As mentioned in the previous chapter, the SACQ was administered pre- and post-intervention. The SACQ is a 67-item self-report questionnaire that measures adjustment along four subscales, namely academic, social, personal-emotional and institutional adjustment. It requires the participant to rate the 67 items on a Likert Scale with values ranging from one to nine. The scored profile yields a score for each sub-scale, as well as a full-scale score for overall adjustment to the university. The responses for each set of questionnaires were analyzed separately. Statistical analysis was employed to analyze and compare the responses to the questionnaires from the two groups, pre- and post-intervention, in order to determine whether the experimental group did in fact benefit from participation in the peer mentoring program, demonstrated by better scores on the SACQ.

I will present the frequency distributions of the demographic profile of the samples first. The discussion of the demographic profile will be followed by a discussion of adjustment scores as measured by the SACQ. I will first present the total adjustment scores and then the various adjustment sub-scale scores. Analysis of variance was used to explore differences in adjustment for the two groups. The level of significance for all statistical analyses was set at 0.05.

6.2.1. Size of the experimental and control groups

For both the pre-test and post-test samples, the SACQ was distributed to all registered first-year students on the Stellenbosch main campus, which totalled a number of 5024 students. A total of

1 064 respondents completed the pre-test version (a response rate of 21.18%) and 425 respondents completed the post-test version (giving a lower response rate of only 8.46%). As discussed in Chapter 5 (section 5.6.1.5), the timing of the survey could likely have influenced the difference in response rates. The pre-test version of the questionnaire was administered early in the year when many students were still adapting to campus. They had also just written their first set of academic assessments; hence adjustment was quite pertinent for first-year students, which might have contributed to the high interest in completing the questionnaire. The post-test version of the questionnaire was, however, administered towards the end of the year, just before the final examinations. By then, I believe, most students were less affected by adjustment challenges, which might have resulted in a lower interest

in completing the questionnaire. Additionally, students were prepairing for the end of year examinations and were most likely focussing on their studies.

The control group comprised of students who had either participated in the peer mentoring program during the welcoming program (of one and a half weeks) or who did not participate at all. The experimental group, on the other hand, comprised of students who participated in the program beyond the welcoming period. Figure 6.1 gives the distribution of participation in the peer mentoring program for the two groups.

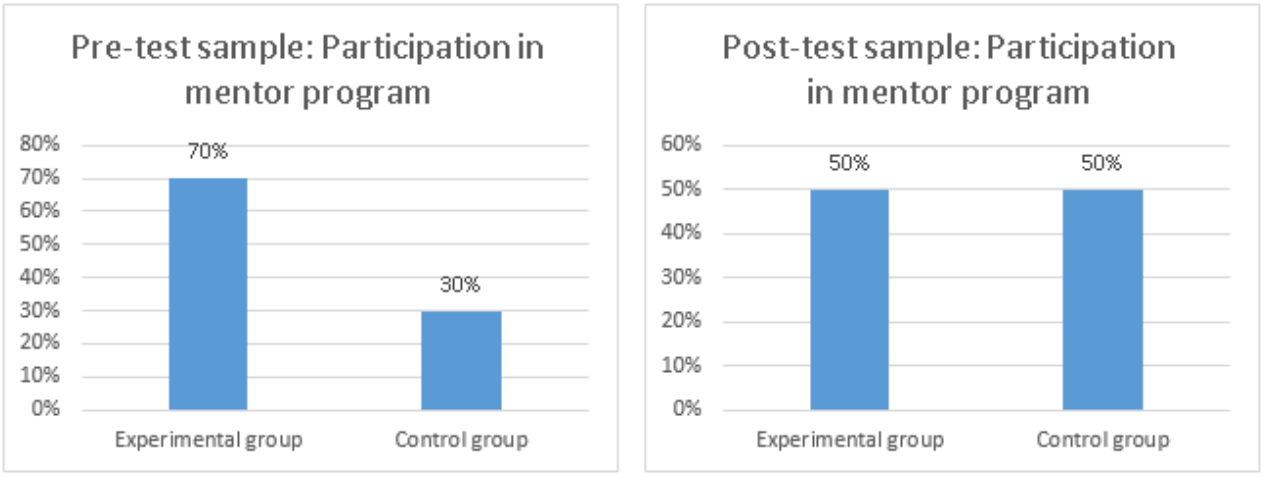


Figure 6.1: Sizes of the two groups in the pre- and post-test samples

As illustrated in Figure 6.1, the pre-test had a higher participation rate from the experimental group than from the control group. Of the pre-test sample, 70% belonged to the experimental group, while 30% belonged to the control group. There was, however, no difference in size between the two groups who participated in the post-test. The participants in the post-test were equally split between the experimental and the control group.

6.2.2. Demographic profile of the samples

Questions on demographic details included gender, race, language, nationality, geographic origin, living environment, parents' educational background and grade 12 results. The demographic characteristics of the pre- and post-test samples were similar and are outlined below. Factorial analysis of variance was used to determine if the demographic variables had any influence on difference in adjustment between groups and over time. No significant demographic interaction effects were found, meaning that the demographic variables did not influence the main results, namely group and time differences (see Appendum 8). In light of this, and given the similarity in the demographic profile of the experimental and control group (in both the pre-test and post-test samples), I will present the demographic profile per sample, instead of per group, for the pre- and post-test.

6.2.1.1. Gender

Figure 6.2 shows the gender profile of the samples. As seen in this figure, female participants were almost double that of male participants in both samples, with 66% of the participants being female in the pre-test and 64% in the post-test.

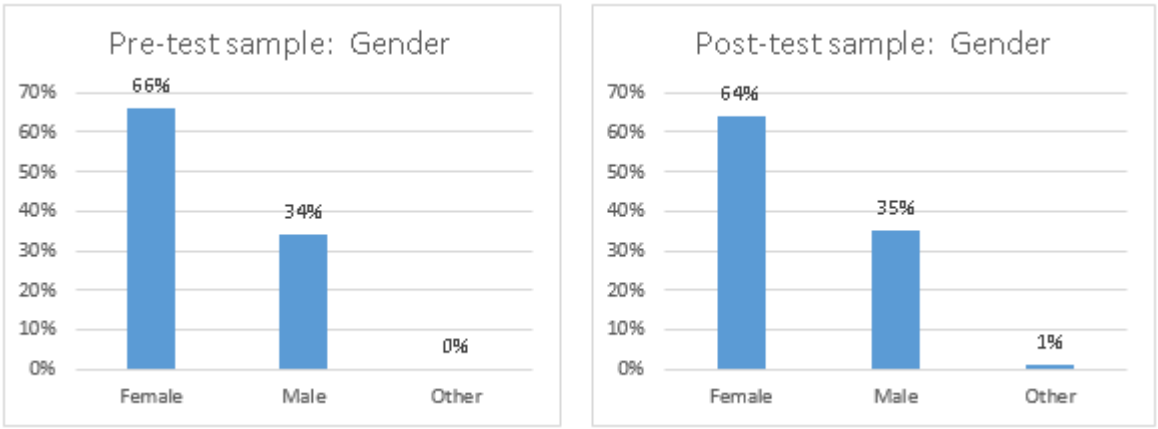


Figure 6.2: Gender of the pre- and post-test samples

The proportion of female students who participated in the pre- and post-tests (Figure 6.2) was significantly higher than the proportion of female students in the student population of the University. In 2017 female enrolments at the institution were 53.72% and male enrolments were 46.28%. There were small differences in these proportions for undergraduate and postgraduate students, with 55.40% female enrolments at undergraduate level and 51.45% female enrolments at postgraduate level respectively. While there are - overall - marginally more female students enrolled at the University, the female respondents to the questionnaire formed two thirds of the sample in the case of both the pre- and the post-test.

A similar trend was found with the focus groups discussions, as discussed under 6.3. The reasons for this are unclear; however, it could be surmised that female students may be more sensitised to the significance of adjustment, and consequently showed more interest in participating in a study on adjustment.

6.2.1.2. Race

The racial distribution of the samples is given in Figure 6.3. As with gender distribution, racial distribution was quite similar for the pre-test and post-test samples. The vast majority of participants were White in both samples, with 63% White students participating in the pre-test and 61% in the post-test. The participant percentages of the other racial groups were lower, with Coloured students at 19% and 20% respectively, African students at 14% and 13% and Asian students at a mere 2% and 4%.

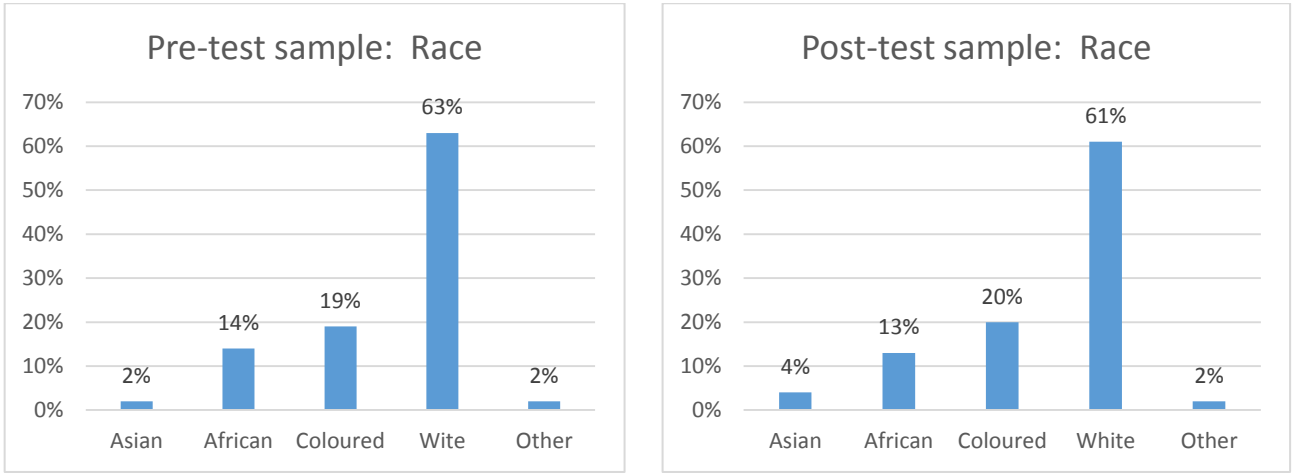


Figure 6.3: Race composition of the pre- and post-test samples

The racial composition of the pre- and post-test samples (Figure 6.3) reflects student enrolments by race at the institution. In 2017 SU had a total enrolment of 60.29% White students and an undergraduate enrolment of 63.38% White students. The participation of White students in the survey was similar to these proportions, with 63% and 61% for the respective samples. A similar trend can be seen for the other racial groups. The proportion of Coloured participants in the survey is similar to the University's enrolments of 20.45% undergraduate Coloured students and 17.58% total Coloured student enrolments. The total African student enrolments at the institution is higher than the undergraduate African student enrolments which, as discussed under section 3.3.2 of Chapter 3, has probably primarily been influenced by the language policy of the institution. The proportion of African students in the two samples (14% and 13% respectively) is similar to the proportion of undergraduate student enrolments at the institution who are African, i.e. 13%. The University enrolls a small percentage of students from other racial groups, including Asian students. In this regard, the proportion of students from other racial groups who participated in the survey is similar to their representation in the institution.

The racial composition of the focus group discussions differed from the racial composition of the survey and the racial composition of the University, as shown in section 6.3. Focus group discussions had a higher participation rate of African students and a lower participation rate of White students. Throughout this thesis I have alluded to the challenges that African and Coloured students encounter when they enroll at higher education institutions (HEIs), and that these challenges often make the adjustment for students from these racial groups tougher. Many African and Coloured students gaining access to the University are first-generation students (FGS). The entering characteristics and HE experiences of FGS differ from their second+-generation peers (Terenzini, et al., 1996; Bui, 2002) and consequently their adjustment is often harder and more complex. The higher participation rates

of African students in the focus group discussions could therefore be indicative of the greater need for support these students had during their first year, which piqued their interest to participate in the focus group discussions.

6.2.1.3. Language

The responses to participants' first-language is given in Figure 6.4. English was the first language of most participants in both samples (52% and 53%), followed by Afrikaans (37% and 36%) and other languages at 11%. The language preferences of the sample are similar to those of the student population at the University, particularly with regard to Afrikaans.

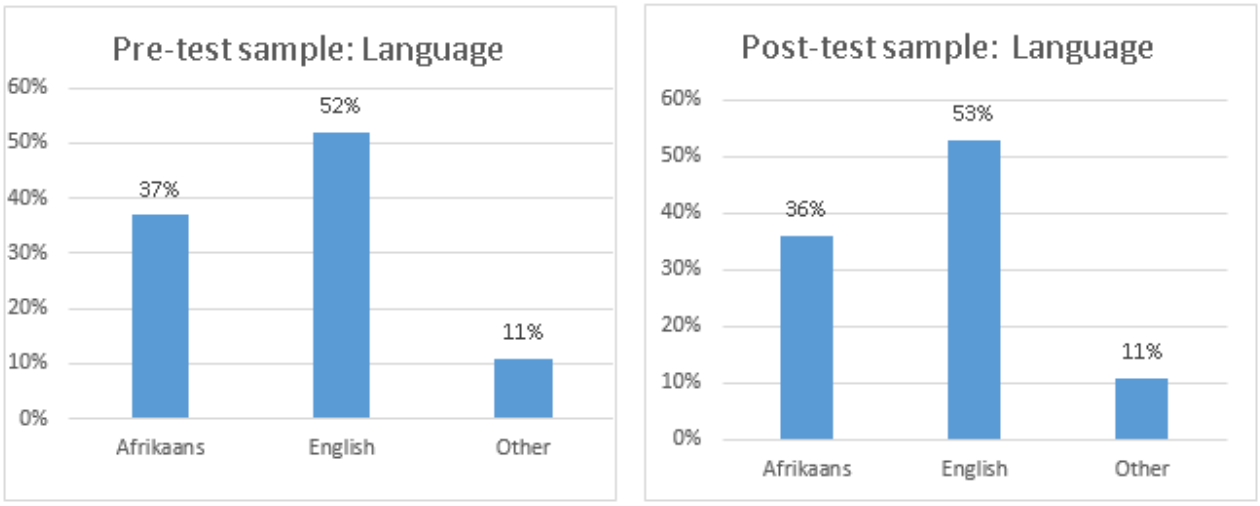


Figure 6.4: Language composition of the pre- and post-test samples

Enrolments of students with Afrikaans as home language have seen a decline at the institution and were at 37.9% in 2017, which is similar in the composition of these samples. The majority of the students in both samples identified English as their first language. These percentages were slightly higher than the percentage of enrolments of students at the institution who identified English as their first language (48.26%). Increasingly more African students in particular prefer to study in English which is, for most of them, a second or even third language. The shrinking pool of Afrikaans speaking Coloured students could further have contributed to the increase in English as first language.

6.2.1.4. Nationality

The vast majority of participants were South African. As illustrated in Figure 6.5 below, 94% of the participants in the pre-test and 93% in the post-test were South African. This is not surprising, given the low enrolment rate of undergraduate international students at the institution.

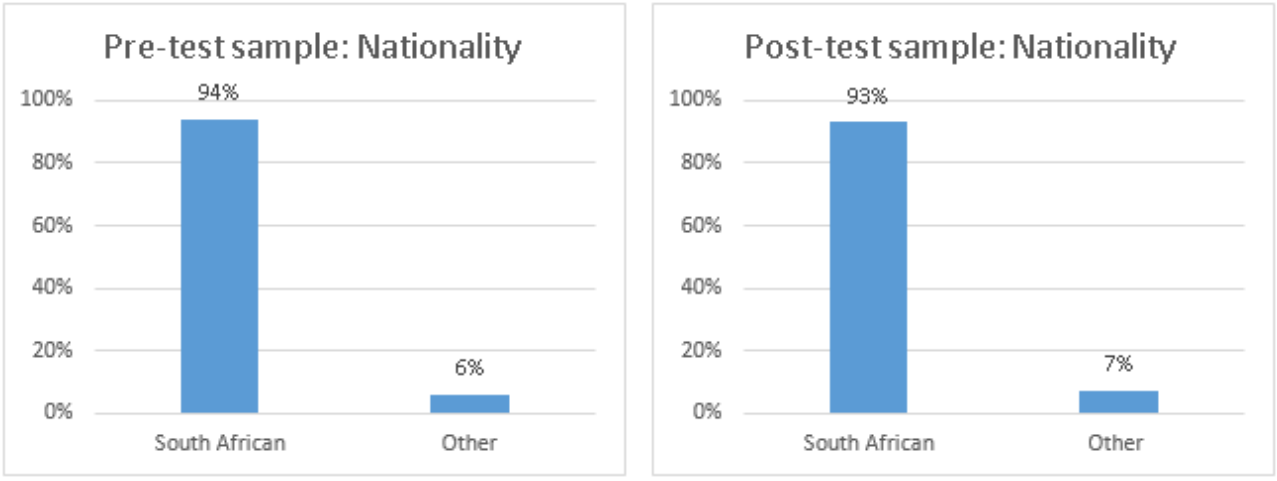


Figure 6.5: Nationality of the pre- and post-test samples

The University attracts mostly South African students, especially at undergraduate level. In 2017, 95.8% of undergraduate students at the institution were South African. The sample therefore reflected the demographics of the undergraduate enrolments in this regard, as the institution has a higher enrolment rate for international students at postgraduate level.

6.2.1.5. Geographic origin

Figure 6.6 shows the proportion of participants originating from the Western Cape. Just over half of the participants were from the Western Cape: 57% in the pre-test and 56% in the post-test.

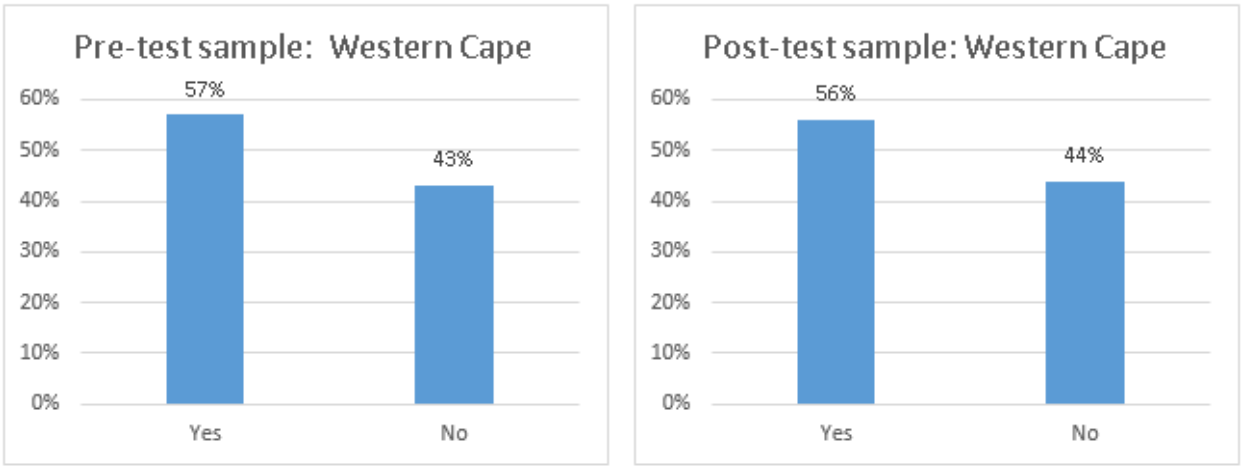


Figure 6.6: Geographic origins of the pre- and post-test samples

I included this specific demographic variable to ascertain whether students from the Western Cape showed better adjustment, as these students had easier access to their family homes. They could visit more frequently, if they wished to do so, and in doing so they could physically access the support from home (family and friends) more often compared to students from other provinces. Factorial

analysis of variance showed, however, that this variable had no influence on differences in adjustment between the two groups over time (see addendum 8).

6.2.1.6. Living environment

The distribution of the participants' living environments is given in Figure 6.7. In the pre-test sample, the majority of participants were living in university residences (53%), while 35% of students were living in private accommodation (other accommodation in Stellenbosch) and 12% were commuter students living outside of Stellenbosch. The distribution for the post-test sample was similar, with 55% living in university residences, 33% living in private accommodation (other accommodation in Stellenbosch) and 11% commuter students living outside of Stellenbosch.

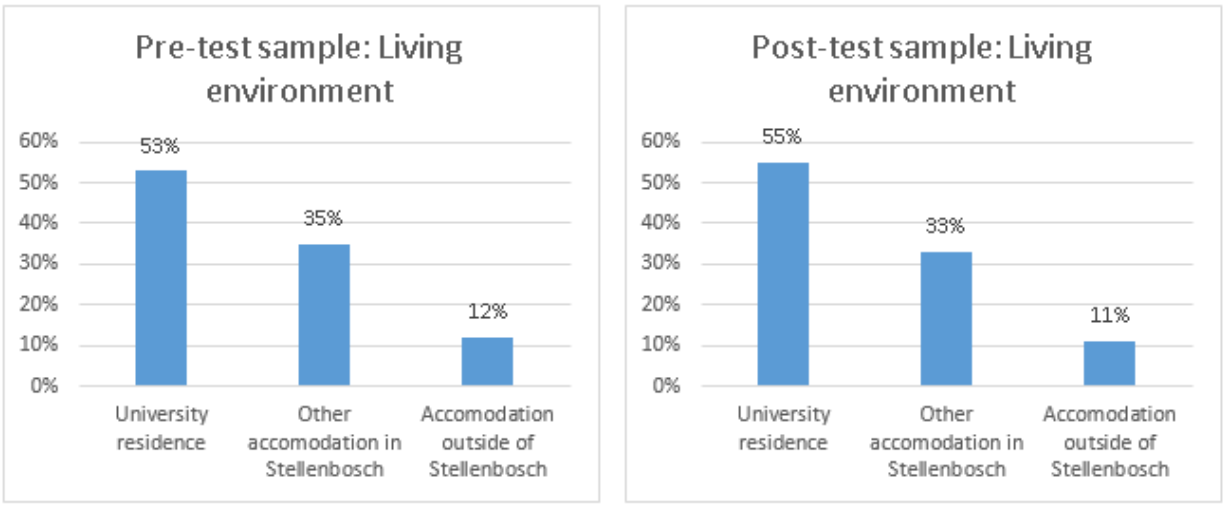


Figure 6.7: Living environment of the pre- and post-test samples

These figures show higher participation rates in the survey for residential students when compared to the broader university context. Only 38.60% of undergraduate students live in university accommodation, and a mere 26.64% of the total student population. Residential students at the institution are generally much more involved on campus compared to PSO students, which could likely have contributed to the higher participation rates amongst them.

6.2.1.7. Parents' educational background

The question pertaining to the educational background of the participants' parents was whether one or both of their parents held a post-school qualification (university/college qualification). This was in line with Crisman Ishler's (2005) definition of FGS, who defined FGS as students whose parents' highest level of education is a high school diploma or less. The responses to the educational backgrounds of the participants' parents are given in Figure 6.8. The yes category refers to second+-generation students, while the no category refers to FGS.

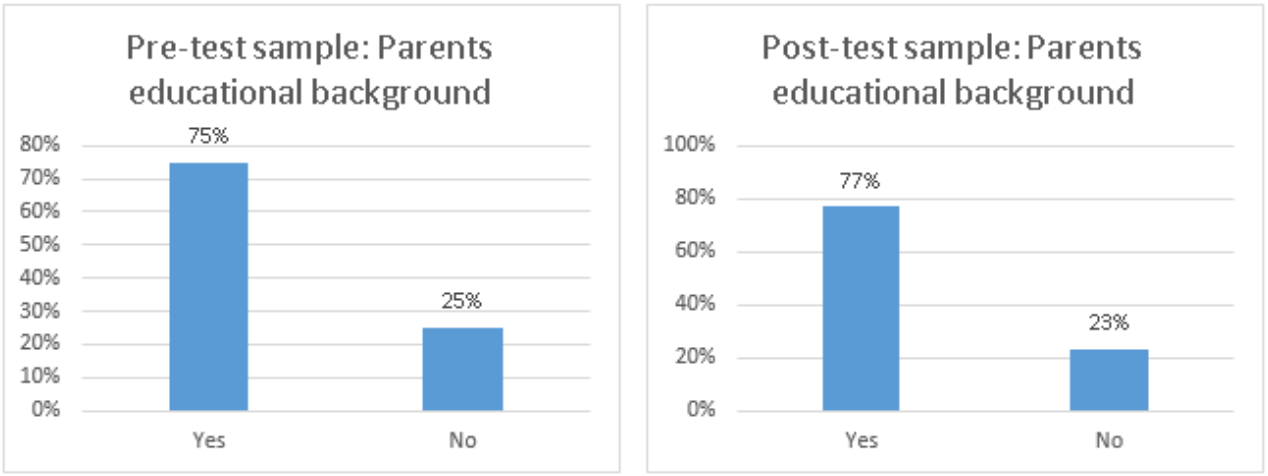


Figure 6.8: Parents' educational background of the pre- and post-test samples

As illustrated in Figure 6.8, the vast majority of participants were second+-generation students in both samples (with 75% and 77% respectively for the pre- and post-test samples). This finding was similar to that of Gibbon (2010), who found that, from the sample of students at SU, only 19% of the were from lower SES backgrounds.

6.2.1.8. Grade 12 results

Figure 6.9 gives the distribution of the grade 12 results[1] of the participants. The majority (88% and 91% respectively) of the participants obtained a minimum of 70% in their final grade 12 examinations. In the pre-test, 49% of the participants obtained a result of 80% and higher, while 39% had a result between 70 and 79%. Similarly, 51% of the participants obtained a result of 80% and higher, while 40% had a result between 70 and 79% in the post-test. A small percentage of students obtained a mark lower than 70%: 12% in the pre-test and 9% in the post-test.

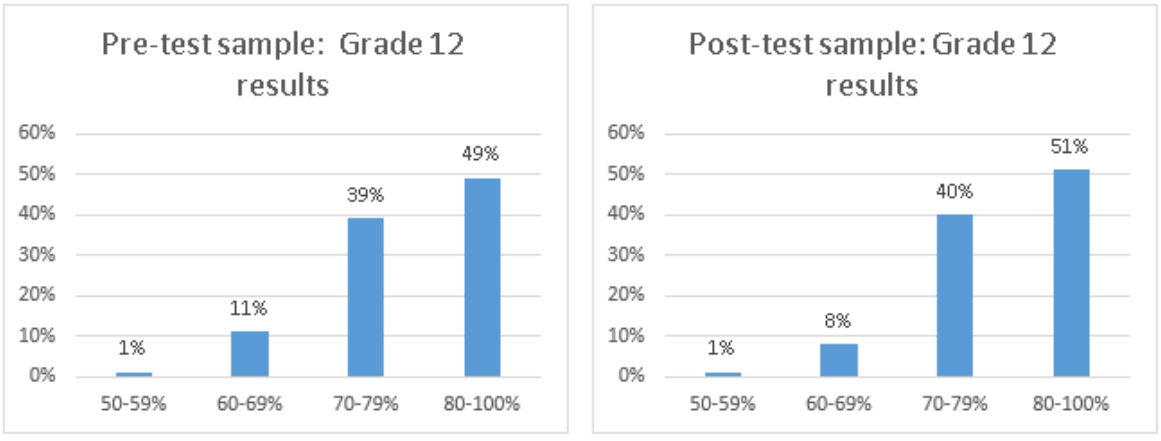


Figure 6.9: Grade 12 results of the pre- and post-test samples

[1] These results do not include the life orientation marks, as life orientation is not included in the final mark with which students apply to university.

These grade 12 results suggest that most of the students entered the institution with good final grade 12 results. However, the adjustment to university might still be difficult as they need to adjust to greater volumes of work, a new way of studying, academic writing styles etc.

6.2.1.9. Previous participation

Students who were invited to participate in the pre-test data collection were again invited to participate in the post-test data collection process. An additional question was included in the post-test questionnaire. Question 11 under the demographic details (*Did you complete this questionnaire, as part of this study, earlier this year?)* was added to ascertain how many of the participants in the sample had participated during the pre-test data collection process.

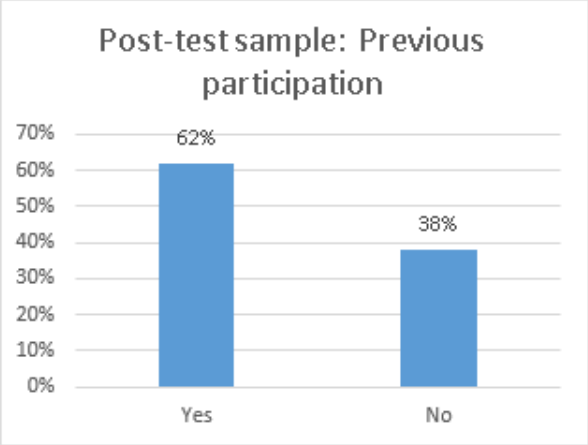


Figure 6.10: Previous participation in the study

As illustrated in Figure 6.10, 62% of the participants from the pre-test study also participated in the post-test study. Due to the anonymity of the questionnaire, I was unable to distribute the post-test questionnaire only to participants who had previously participated in the study. The majority of participants in the post-test had, however, previously participated in the study by completing the pre-test questionnaire.

6.2.3. Overall adjustment scores

The SACQ yields a full-scale score for overall adjustment to university, which comprises of all the sub-scale scores. The overall adjustment scores from the pre-test data were compared with the adjustment scores from the post-test data. Analysis of variance was calculated to determine whether there was any statistically significant difference in the overall adjustment of the two groups. As illustrated in Figure 6.11, it was found that there was no statistically significant difference in post-test adjustment scores for the two groups ($p = 0.7916$). Similarly, Cohen D effect sizes (Table 6.1) showed only a negligible difference in the adjustment of the control group and of the experimental group in the post-test adjustment (0.12 negligible).

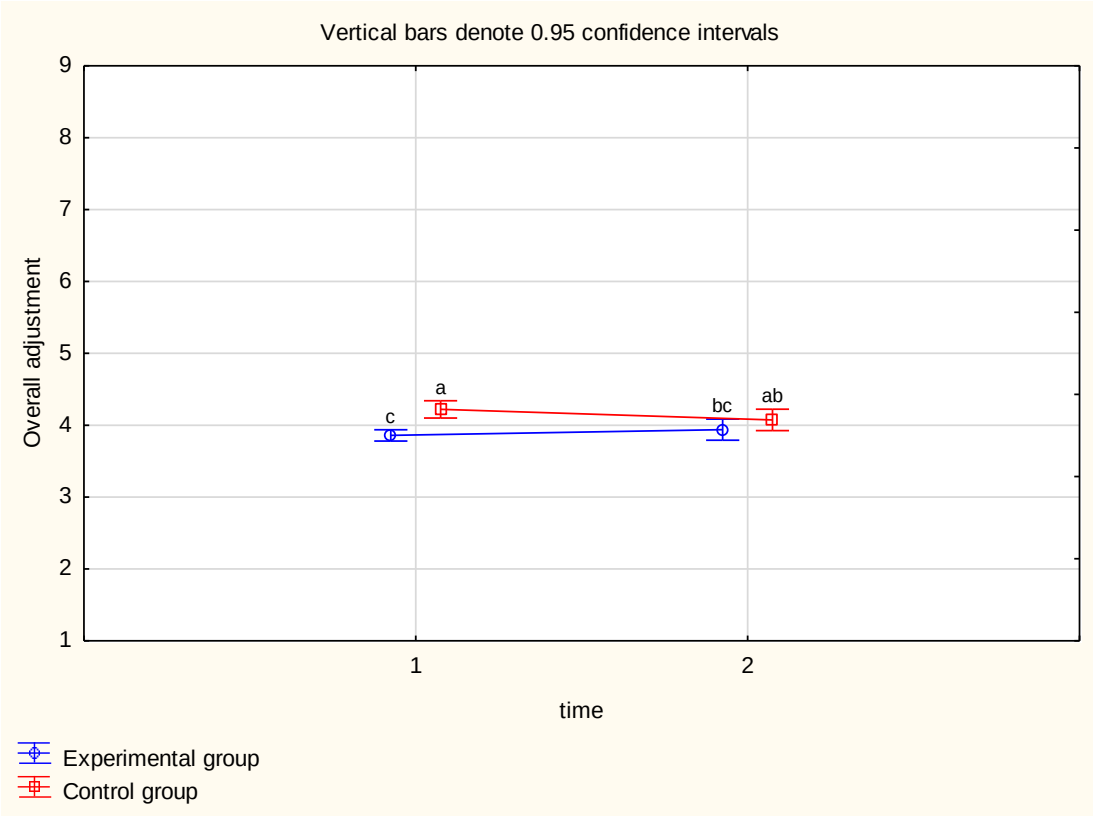


Figure 6.11: Overall adjustment of control group and experimental group

While there was no statistically significant difference in the overall adjustment of the two groups, the control group did show a decline in their adjustment, while the experimental group showed an increase (Figure 6.11).

Table 6.1: Cohen D effect sizes for overall adjustment of control group and experimental group

	Total Adjustment	**Time**	**1**	**2**	**3**	**4**
1	Regular	1		0.07(negligible)	0.33(small)	0.2(small)
2	Regular	2	0.07(negligible)		0.25(small)	0.12(negligible)
3	Never	1	0.33(small)	0.25(small)		0.13(negligible)
4	Never	2	0.2(small)	0.12(negligible)	0.13(negligible)	

For the pre-test, Cohen D effect sizes show a small difference between the two groups (0.3 small), and in this instance the control group had higher adjustment scores. For the post-test, however, the difference between the two groups was smaller (0.12 negligible), because the adjustment of the experimental group increased from the pre-test, while the adjustment of the control group showed a decrease from the pre-test. In spite of the lack of a statistically significant difference in the overall adjustment of the two groups, this trend does suggest that participating students might have derived some benefit from participation in the program, but that it was not as significant as the program intended it to be.

6.2.4. Adjustment scales

Pre-test adjustment scores on the sub-scales of the SACQ for the two groups were compared to the post-test scores on these subscales. No statistically significant differences ($p>0.05$) were found between the two groups over time for any of these sub-scales. A trend was however observed that adjustment scores on the attachment, personal-emotional and academic subscales for the control group showed a decline in the post-test, while the scores for the experimental group showed an increase. While these differences were small and had negligible size effects on the Cohen D tests, this trend does suggest that the adjustment of students in the experimental group did improve marginally, but not as significantly as the program had intended these benefits to be. The results from the subscales are now presented individually.

6.2.4.1. Attachment (Institutional adjustment)

The attachment subscale measured the extent to which the students felt committed to the University. Attachment scores from the pre-test data were compared with the attachment scores from the post-test data. No statistically significant difference was found in the attachment of the control group or that of the experimental group ($p = 0.06078$) in the post-test (Figure 6.12). For the post-test attachment, Cohen D effect sizes (Table 6.2) show a negligible difference between the control group and the experimental group (0.1 negligible).

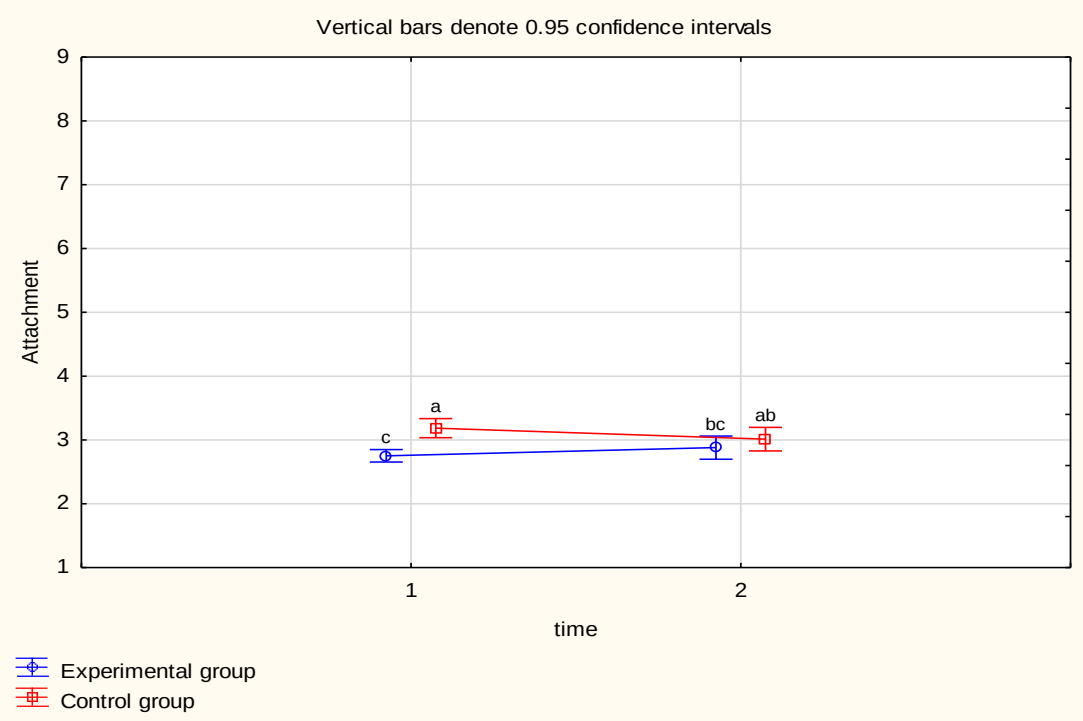


Figure 6.12: Attachment of control group and experimental group

However, similar to the overall adjustment scores, the control group shows a small decline in their attachment, while the experimental group shows a small increase in attachment in the post-test (Figure 6.12).

Table 6.2: Cohen D effect sizes of attachment of control group and experimental group

	Attachment	**Time**	**1**	**2**	**3**	**4**
1	Regular	1		0.1(negligible)	0.32(small)	0.2(small)
2	Regular	2	0.1(negligible)		0.22(small)	0.1(negligible)
3	Never	1	0.32(small)	0.22(small)		0.12(negligible)
4	Never	2	0.2(small)	0.1(negligible)	0.12(negligible)	

Pre-test Cohen D effect sizes show a small difference between the two groups (0.32 small) for the pre-test, when the control group had higher adjustment scores. For the post-test, however, the difference between the two groups was smaller (0.1 negligible) due to the increase in attachment scores for the experimental group. This trend again suggests that, in spite of the lack of a statistically significant difference in the attachment of the two groups, participating students may have had some benefit from participation in the program.

6.2.4.2. Personal-emotional adjustment

The personal-emotional adjustment sub-scale measures the degree of psychological distress experienced by students and their experience of somatic symptoms of distress. The personal-emotional scores from the pre-test data were compared with the personal-emotional scores from the post-test data. Again, no statistically significant difference was found between the personal-emotional adjustment of the control group and that of the experimental group ($p=0.07740$) in the post-test (Figure 6.13).

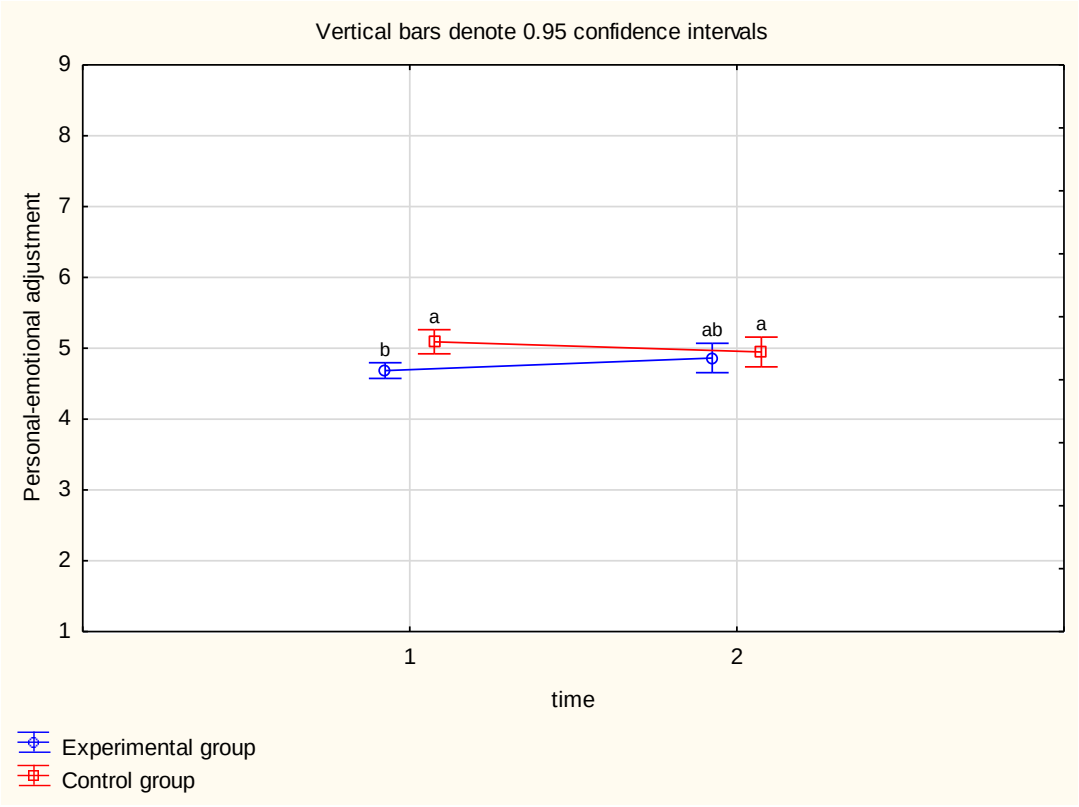


Figure 6.13: Personal-emotional adjustment of control group and experimental group

For post-test attachment, Cohen D effect sizes (Table 6.3) showed a negligible difference between the control group and the experimental group (0.05 negligible).

Table 6.3: Cohen D effect sizes of personal-emotional adjustment of control group and experimental group

	Personal-Emotional	**Time**	**1**	**2**	**3**	**4**
1	Regular	1		0.12(negligible)	0.27(small)	0.17(small)
2	Regular	2	0.12(negligible)		0.14(small)	0.05(negligible)
3	Never	1	0.27(small)	0.14(negligible)		0.09(negligible)
4	Never	2	0.17(small)	0.05(negligible)	0.09(negligible)	

Yet again, the control group showed a decline in their attachment, while the experimental group showed an increase (Figure 6.13). For the pre-test, the control group had a higher attachment score, and the Cohen D effect sizes showed a small difference between the two groups (0.27 small). However, the difference became smaller in the post-test (0.05 negligible), due to a decrease in personal-emotional adjustment of the control group and an increase of personal-emotional adjustment of the experimental group. The differences between the groups in the post-test were not statistically

significant, but this trend again suggests that participating students experienced some benefit from participation in the peer mentoring program.

6.2.4.3. Academic adjustment

The academic subscale measured how well students coped with the various educational demands. No statistically significant difference was found on the academic adjustment subscale either. When the academic adjustment scores from the pre-test data were compared with the academic adjustment scores from the post-test data, a p-value of 0.15205 was found (Figure 6.14).

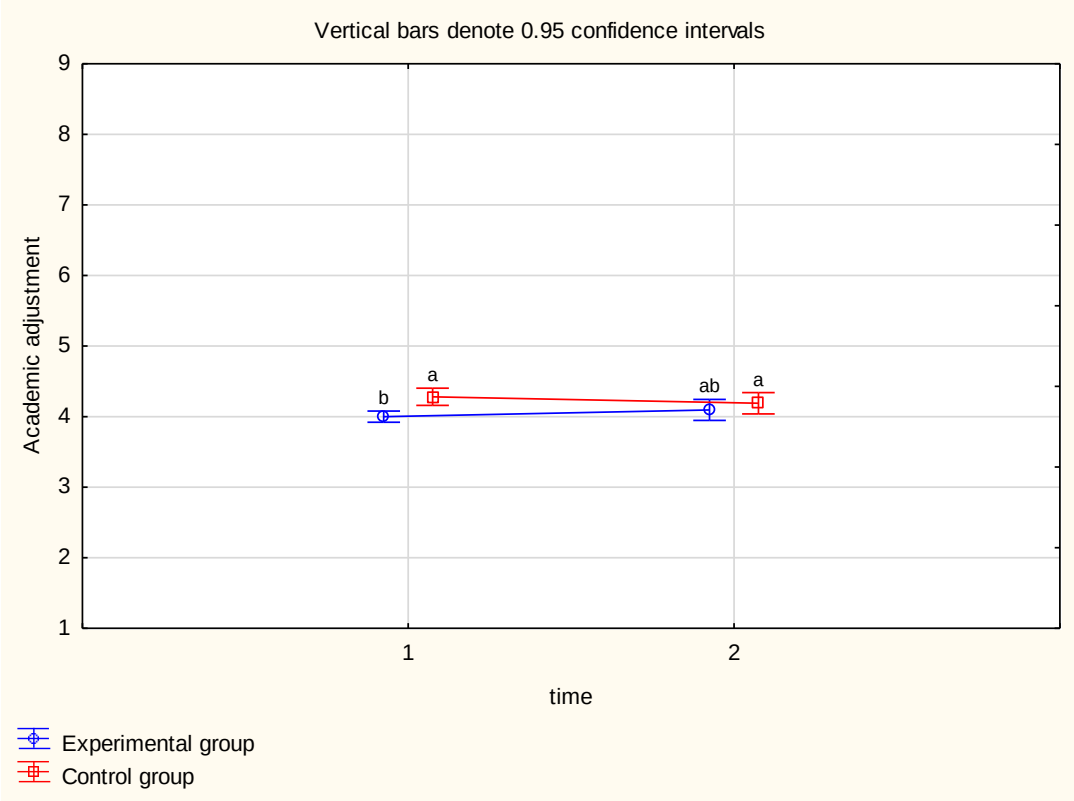


Figure 6.14: Academic adjustment of control group and experimental group

For the post-test academic adjustment, Cohen D effect sizes (Table 6.4) showed a negligible difference between the control group and the experimental group (0.08 negligible).

Table 6.4: Cohen D effect sizes of academic adjustment of control group and experimental group

	Personal-Emotional	**Time**	**1**	**2**	**3**	**4**
1	Regular	1		0.09(negligible)	0.25(small)	0.17(small)
2	Regular	2	0.09(negligible)		0.17(small)	0.08negligible)
3	Never	1	0.25(small)	0.17(negligible)		0.08(negligible)
4	Never	2	0.17(small)	0.08(negligible)	0.08(negligible)	

The trend observed from the above-mentioned sub-scales is again noted: the control group showed a decline in their attachment, while the experimental group showed an increase in attachment in the post-test (Figure 6.14). For the pre-test, Cohen D effect sizes showed a small difference (0.25 small) with a higher score for the control group. This difference became even smaller in the post-test data (0.08 negligible), as the scores for the control group decreased and the scores for the experimental group increased, again suggesting some benefit from participation in the program (albeit not statistically significant).

6.2.4.4. Social adjustment

The social adjustment subscale measured the students' ability to manage interpersonal experiences such as making friends and interacting in groups. No statistically significant difference was found on the social adjustment subscale. When the social adjustment scores from the pre-test data were compared with the social adjustment scores from the post-test data, a p-value of p=0.25824 was found (Figure 6.15).

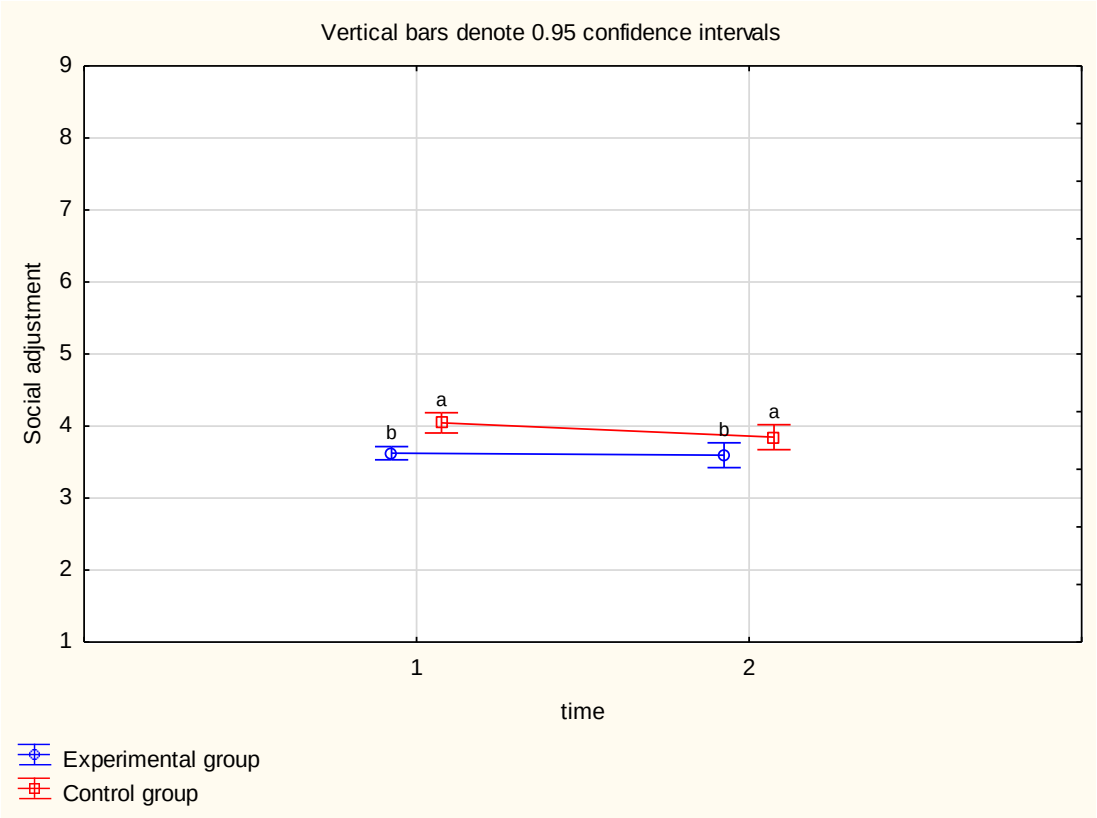


Figure 6.15: Social adjustment of the control group and comparison group

For the post-test social adjustment, Cohen D effect sizes (Table 6.5) showed a small difference between the control group and the experimental group (0.19 small).

Table 6.5: Cohen D effect sizes of social adjustment of control group and experimental group

	Personal-Emotional	**Time**	**1**	**2**	**3**	**4**
1	Regular	1		0.02(negligible)	0.33(small)	0.17(small)
2	Regular	2	0.02(negligible)		0.35(small)	0.19(small)
3	Never	1	0.33(small)	0.35(small)		0.16(small)
4	Never	2	0.17(small)	0.19(small)	0.16(negligible)	

This is however similar to the small Cohen D effect sizes showed at the pre-test. On the other sub-scales, the experimental group showed an increase during the post-test. Conversely, for this sub-scale the scores for the experimental groups were similar for the pre- and post-test, compared to a decline in the scores of the control group. These results suggest that participation in the program did not contribute much to the social adjustment of participating first-year students. Participants in the focus group discussions reported benefitting in terms of their social adjustment primarily through the friendships formed with other first-year students in their mentor group (see section 6.3.2.4**).** As mentioned, this sub-scale measured the students' ability to manage interpersonal experiences such as

making friends and interacting in groups. While they may have made friends, as suggested from the focus group discussions, it was more because of the structure of the peer mentoring program that they made friends with their mentees rather than them managing their interpersonal interactions. The social adjustment experienced in the mentor groups was therefore not necessarily transferred to other contexts in and out of the classroom.

6.2.5. Concluding remarks

The trend of the control group showing a decline in adjustment scores, with the experimental group showing an increase for the post-test, was observed in three sub-scales (social-adjustment was the exception), as well as in the overall adjustment scores. However, the lack of statistical significance on the overall adjustment and sub-scales in the post-test between the two groups raised concern about the effectiveness of the program. To understand these results, particularly why participating students were not optimally benefitting from participation in the peer mentor program, focus group discussions were facilitated. These focus group discussions explored in more detail the experience of students who had participated in the peer mentoring program in order to provide insight into the results of the quantitative data collected.

6.3. RESULTS FROM QUALITATIVE DATA (PHASE 2)

During the analysis of the quantitative data, statistical analysis was employed to analyze and compare the responses to the questionnaires from the two groups, pre- and post-intervention. This was done in order to determine whether the experimental group performed better on the SACQ, which could lead to the deduction that they did in fact benefit from participation in the peer mentoring program. The results, discussed in section 6.2, did not show a statistically significant difference in adjustment between the two groups for the post-test. This raises questions regarding the extent to which the peer mentoring program contributed to the adjustment of participating students in their first year, if at all.

The qualitative data gathered in phase 2 explored students' (from the experimental group) experiences of the peer mentoring program. The focus group discussions yielded data on the factors at play in the peer mentoring program, which may have hindered participating students from optimally benefitting from their participation in the program. Hence, the results from phase 2 explained the lack of statistical significance found in the adjustment scores between the two groups post-intervention.

6.3.1. Demographic profile of participants in focus group discussions

For the focus group discussions I used the purposive sampling strategy, as I had specific criteria for participation. Participants needed to be a second-year student on the Stellenbosch main campus, having participated in the peer mentoring program in 2017 beyond the welcoming period. I did not

have access to the list of first-year students from the previous year and had to utilize gatekeepers. I contacted all the mentors of 2017, the current leadership in the residences and PSOs, as well as the residential heads and PSOs asking them to inform the first-year students from the previous year about the focus group discussions. Interested students then contacted me directly and were slotted into one of the focus groups discussions according to their availability. Five focus group discussions were facilitated with four or five students each, giving a total of 22 participants. I facilitated the focus group discussions myself and they were guided by the semi-structured interview schedule (Addendum 5). I explained to the participants that I wanted to understand their experiences of the peer mentoring program, and while there were some questions guiding the discussion, they were encouraged to freely and honestly share their experiences. The small groups fostered in-depth discussions and all participants contributed to the discussions.

A total of 22 participants were included in the focus groups discussions. Twelve of the participants (63.64%) were females, while eight (36.36%) were males. The participants were racially diverse: 36.37% were African, while the Coloured and White students each comprised 31.82%. The racial demographics are different to that of the University: the participation of African students in the focus group discussions was much higher than the representation of African students at the University, while it was lower for White participants. This could be reflective of the increased need for support that African students may have; consequently they were eager to participate in a study that evaluated one of the primary support initiatives the University offers to first-year students. The vast majority of the participants lived in university residences (86.36%), while only three participants (13.64%) were PSO students. Many PSO students are not as involved as residential students on campus. Given the fact that many of them need to travel to and from campus, it is more difficult to get PSO students to commit to activities such as these focus group discussions. The three students from the PSO environments also alluded to the extra effort required from PSO students to commit to activities on campus, as will be discussed in section 6.3.2.1.2. I will now discuss the themes that emerged from the qualitative data. I will start by discussing the intensity of the peer mentoring and the factors that contributed to the intensity of peer mentoring, namely the nature of the peer mentoring relationship and the nature of interaction between mentor and mentor. Thereafter I discuss the benefits in terms of adjustment experienced by participating students and finally, I discuss the benefits experienced specifically from the Be Well component of the program.

6.3.2. Intensity of peer mentoring

The intensity of mentoring received emerged as a central theme during the focus group discussions. I will now present some responses[2] from the respondents to illustrate the difference in intensity experienced by the students. Respondent 16 stated:

> *I felt like she genuinely cared about me and my wellbeing. You know when you feel like someone's there for you, but you don't even know them, that's the type. ...I remember one morning she got up so early with me to go change my degrees. We stood in a long line, while she had to take two of our other mentees to somewhere else. She had to run up and down. And I mean she made so much effort for me, I appreciate her so much. Like for last year. Cause if she wasn't there I would have probably done the wrong degree, be miserable and, yes, just not have coped [R16].*

Respondent 16 expressed the important role that her mentor had played in her transition during her first year: she stated that her mentor helped her to cope during her first year. She also articulated the effort that her mentor invested in her; consequently she benefitted from an intense mentor experience. Similarly, respondent 9 alluded to the commitment that his mentor had showed towards him as mentee and how this had helped him:

> *He was there for me throughout the year. I still message him now if I have any questions that I have to ask him or whatever, but I'm much more familiar with the system now. But last year he was like very open, I could speak to him and he was always there to help me. He wasn't even in Stellenbosch because he stays in Paarl and then the weekend I message him, listen, this is what's going on, then he messaged one of the other mentors and then they sorted me out with something. So it was easy [R9].*

Similar to respondent 16, respondent 9's mentor was also invested in the peer mentoring program and put much effort into this role. Respondent 9 further highlighted the openness of his mentor and the availability to assist him individually, as needed. Respondent 5 highighted how she benefited, in terms of her adjustment, from participation in the program through the advisory role her mentor played during her first year:

> *Well, I felt that the mentor program was really something that was helpful to me personally because coming from high school into a university it was a new environment and everything was a bit challenging. But having a mentor to guide you and to show you how to do things and what not to do and what to do was quite helpful [R5].*

[2] Some responses throughout this discussion have been edited to improve the readability of the quotes, without changing the content of the quote. For example phrases such as "umh" and "yeah" have been removed.

The advisory role that respondent 5's mentor had played, was also significant for respondent 19. She shared the following:

> *Ok I think the mentor system gave me a person - if I can say it like that. I'm also from quite far and there's no one from my town here so it was a person that I could ask questions to and that who knew me and was checking up on me, so that I really enjoyed and I actually became good friends with her and now still if I have a question I would ask her first. I still see her as my mentor kind of in the sense of she's the person that I go to when I need to know how do I do this, or what would you recommend. I think I got a friend out of it more than anything else [R19].*

Respondent 19 also spoke of the relationship she had formed with her mentor. She referred to her mentor as the person she could go to for any guidance and advice and that they became friends. Not only did this mentor take on an advisory role, but the friendship reflected the strong connection that was formed between the mentor and mentee.

The study employed Campbell and Campbell's (1997) definition of mentoring. These authors understood mentoring to be a situation in which a more experienced member of an organization (mentor) maintains a relationship with a less experienced member of the organization (mentee), and provides information, support and guidance so as to enhance the less experienced member's chances of success in the organization. The four respondents quoted above [R16, R9, R5, R19] shared intense peer mentoring experiences with their mentors. They described their mentors as a guide or a friend who was always available to assist them when they needed help or guidance, and in doing so helped them through challenges faced during their first year and with their adjustment to the university environment. When intense peer mentoring occurred, as in the case of these respondents, students experienced the mentor as an advisor, supporter and a resource, as per the definition of Campbell and Campbell of a mentor. Students who shared intense mentoring experiences also acknowledged the benefits they experienced from having a mentor, and they spoke about how having a peer mentor helped them with coping and adjustment during their first year. However other respondents, like respondents 10, 22, 15 and 12 cited below, described less intense mentoring relationships. Respondent 10 shared the following:

> *I think I had a different experience compared to that. My mentor, he was there for the first two days and then after that he was pretty much absent. He would rather just, instead of having the sessions, he would communicate once every three months or something like that just to check in. But that's not necessarily what was necessary, because first semester stress, just getting used to all the new work and all that stuff, he was at least studying the same thing as we were, but then he wasn't able to avail himself [R10].*

Respondent 10 expressed a need for additional support from his mentor. As a first-year student he had an expectation that his mentor would continue with the level of engagement shown during welcoming throughout his first-year. He highlighted the issue of expectations from the mentee's perspective, which may have differed from the mentor's understanding of what he could or should offer. He also raised the issue of same faculty pairing, stating that because his mentor studied the same course as he, he expected the mentor to specifically assist him with his academic work. Given the fact that the peer mentoring program focusses more on wellness and psycho-social support and not on programme or course content, assisting mentees with academic work is not a primary responsibility of the mentor. Therefore respondent 10 may have had expectations regarding issues which the mentor was not primarily required to assist with. Respondent 22 also alluded to the fading of peer mentoring after the welcoming period:

> *OK, so during welcoming week, I think every night we had mentor sessions. Maybe one night we skipped or so, but after that three to four times the next few weeks kind of faded away and then it disappeared, and at the end of the year she was just another person, you know, on the floor. You will say hallo and she will greet you back and then didn't say anything else [R22].*

In addition to highlighting the decline in peer mentoring after welcoming, respondent 22 also articulated how this had affected the peer mentoring relationship, stating that her mentor had become just another person she had known in her residence. Similarly, respondent 12 alluded to the waning of peer mentoring after the welcoming period and how this affected their relationship:

> *So I feel like having that one session with him during welcoming and then after that he helped me once with my essay for political science, which I did appreciate, but then after that he just like, you know, radio silence. Only when I see him in the residence he just says, listen, hi, how's it? I'm cool. And then that's literally, that was all. So I would've wanted him, I think, to be a lot more involved, to just ask me, listen, how are you doing? Are you coping? Are you settling in? Cause I feel like I really, I think that ... And I think, I don't know, maybe I missed out or I think that kind of like ... I don't know the word that I'm looking for, but I think it had an effect on how I experienced my first year, because he wasn't there for me [R12].*

For respondent 12, like respondent 22, the mentor had become just another person in their residence they would greet in passing. In addition to the diminishing of peer mentoring after the welcoming period, respondent 15 also alluded to the nature of the contact she had with her mentor; these interactions were in a group context and her mentor did not initiate one-on-one individual sessions with her.

> *And so my mentor, personally she didn't really carry out the certain duties that were supposed to be carried out as a mentor to her mentees. For example we didn't really have many group*

sessions, like continuation from welcoming….I think there were supposed to be individual sessions, we never had individual sessions as well [R15].

For respondents who had less intense mentoring relationships, such as R10, R22, R15 and R12 quoted above, a shift in the intensity of mentoring had occurred after the welcoming period. Students experienced their mentors as involved during the welcoming period, but this level of engagement was not sustained after the welcoming period. Collings, Swanson and Watkins (2016) had a similar finding in their study on the impact of peer mentoring on student wellbeing, integration and retention. They found that peer mentoring was more intense during welcoming, and by ten weeks post welcoming it had faded for most of the participants in the study. Two of the respondents (R10 and R12) further emphasized the need they had for a more intense mentoring relationship and that the lack thereof had an adverse effect on their first-year experience. They were of the opinion that they missed out on much needed guidance and support during their first year, as a result of less intense mentoring received.

Boruch and Gomez (1977) underscored the challenges with programs delivered at an individual level, such as the peer mentoring program that is delivered by individual mentors, and how these could pose a major potential challenge to the successful implementation of such programs. The results from the focus group discussions support the concerns raised by these authors, as the outcomes students experienced from participation in the program were found to be primarily influenced by the intensity of peer mentoring each first-year student received from an individual mentor. The results also support Jacobi's (1991) conclusion that the intensity of the peer mentoring differs in mentoring programs. In this study, the difference in intensity had an effect on the outcomes of the program, as can be inferred from the above responses.

The intensity of the peer mentoring was central to how students experienced the program and how they benefited from it. Students receiving intense mentoring experienced more benefits compared to those who had received less intense mentoring. As illustrated in Figure 6.16, two central sub-themes emerged as influencing the intensity of the peer mentoring: 1) the nature of the peer mentoring relationship and 2) the nature of interaction between the mentor and mentee. Factors that influenced the nature of the peer mentoring relationship also emerged, and these are also illustrated in Figure 6.16.

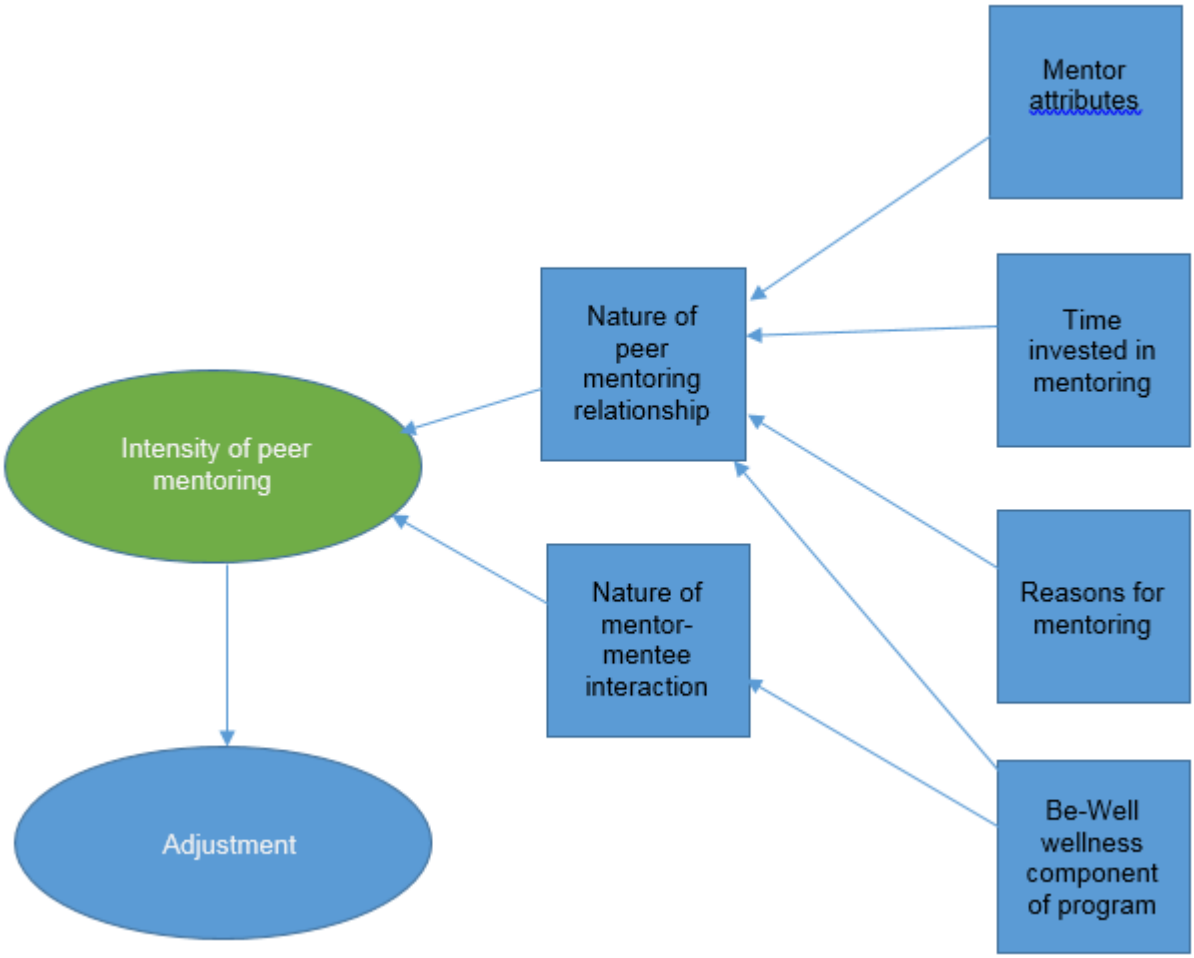


Figure 6.16: Factors contributing to the outcomes of the Be Well Peer Mentoring Program

Figure 6.16 presents an overview of the factors that influenced the peer mentoring intensity and illustrates the interplay between the peer mentoring intensity, factors contributing to the level of intensity and program outcomes. Two central sub-themes, namely the nature of the peer mentoring relationship and the nature of the interaction between mentor and mentee, emerged. Mentor attributes, time invested in mentoring, reasons for mentoring and the Be Well wellness component were all factors that contributed to the nature of the peer mentoring relationship. The Be Well component of the program also influenced the nature of the interaction between the mentor and mentee, and as will be discussed, resulted in unintended outcomes for the program. I will now discuss the two sub-themes and the factors that influenced them.

6.3.3. Factors contributing to the intensity of peer mentoring

The nature of the peer mentoring relationship and the nature of interaction between the mentor and mentee influenced the intensity of the peer mentoring received by the first-year mentees, which in turn had an effect on the extent to which students benefited from participation in the program. Many

factors that specifically influenced the nature of the peer mentoring relationship also emerged. These were: mentor attributes, the amount of time mentors invested in mentoring, reasons why mentors became mentors and finally, the Be Well wellness component of the program. I shall now discuss how the nature of the peer mentoring relationship, as well as the nature of interaction between the mentor and mentee, influenced the intensity of the peer mentoring. I shall further discuss how the factors that were identified had contributed to the nature of the peer mentoring relationship.

6.3.3.1. Nature of peer mentoring relationship

Some students described the relationship they shared with their mentors in positive terms, while others were rather negative. Respondents 16, 9, 5 and 19 who shared intense mentoring experiences (section 6.3.1), described their mentors as their advisors, a go-to person or a friend. Respondent 2 also shared a positive relationship with his mentor and explained how the mentor, who was a more knowledgeable student, guided him as the less knowledgeable student in his first year. He said the following:

> *I formed quite a nice bond with my mentor. We're still actually good mates. …You become friends, so it's like this whole, not hierarchy, but they know more than you, they then teach you until the point where you guys know an equal amount of information [R2].*

Other students did not consider their mentors to have played an advisory role, but rather described the mentor as a practical resource providing information to them, as shown from the responses by respondents 17 and 3 below:

> *It wasn't as close of a relationship, but she was still a person that I could use. Like an entity, if you'd say, but like ...Like a compass. When I need directions, I just go to her. But we didn't have a close relationship, like I'm your friend now [R17].*

Respondent 17 referred to her mentor as a compass, being able to refer her to the needed resources, while respondent 3 described his mentor as an informant who conveyed useful information to him. Both of these roles refer to an informative role played by the mentor.

> *So throughout the whole mentorship program, every session we had, whether it was Be Well or whether it was just a catch-up thing, there would always be clarification about something or just new information that I could actually retain and find useful…. Informant is how I would describe him. He informed me of what's going on [R3].*

In some cases, the mentor-mentee relationship was experienced as quite distant, as articulated by respondents 18 and 1.

> *I think she'd be like a distant acquaintance, I think. Yes, that's how I would describe it [R18].*

Respondent 18's use on the phrase "distant acquaintance" to describe the nature of her relationship shared with her mentor suggests a poor connection and low engagement between mentor and mentee. For respondent 1 the nature of the relationship was even poorer and she is unable to describe it, due the lack of forming any relationship.

I cannot really say that I experienced mentoring because my mentor was like solidly absent [R1].

The diversity in the quality of mentoring experiences reported by students is testament to the complexity of mentoring relationships that Gehrke (1988) alluded to. Gehrke (1988) argued that no uniformity exists in peer mentoring relationships and the differences in experiences, as articulated by the participants in the focus group discussions, support his argument that there is no uniformity. The lack of uniformity is, however, significant to the outcomes of the program, as the intensity of the mentoring was linked to functions provided by the mentor. Jacobi (1991), Kram (1983) and Kram and Isabella (1985) highlighted two primary functions provided by mentors: a psycho-social function and a career and professional development function. The psycho-social function of mentoring is described by Terrion and Leonard (2007) as offering emotional and psychological support, while the career and professional development function pertains to advice, support and information related to academic task accomplishment and career success. In a positive, intense peer mentoring relationship the mentor provided both these functions, and s/he played the role of an advisor or friend. In a more neutral ('ok') peer mentoring relationship, the role was described as informative, with the mentor regarded as a resource providing a career and professional development function rather than an advisory one. When the peer mentoring relationship was distant, the mentor was regarded as an acquaintance who held no benefit to the mentee, and consequently provided none of the required functions. I will now discuss how mentor attributes contributed to the nature of the peer mentoring relationships that were formed.

6.3.3.1.1. Mentor attributes

A genuine interest in their mentees and a sincere desire to be there for them, emerged as important mentor attributes that foster a good peer mentoring relationship, as illustrated by the responses given below. Respondents were giving their opinions on what attributes a good mentor has. For respondent 13 a good mentor is caring, has genuine interest in peer mentoring and shows in interest in mentees:

Show interest. Actually care about the person, not just do it because it is their job as a mentor [R13].

Similarly, for respondent 4, a good mentor also has a genuine interest in peer mentoring and shows a genuine interest in mentees:

I think genuine interest. Not just doing it to do it, but to actually want to be there and making sure that your mentees feel seen and wanted to be there [R4].

Respondent 1 below also articulated genuine interest as an attribute of a good mentor. However, he further explained that the mentor should have a genuine interest in helping first-year students with their adjustment during the first year, and that a mentor should genuinely care about the wellbeing of first-year students:

> *I think their heart must be in it, I say. And I'm saying their heart because I feel like you need to see that this guy really is passionate and he really does care about how first years' experience welcoming, cause then it's a very stressful time [R1].*

The attribute of a genuine interest in their mentees was commonly expressed as an attribute of a good mentor. Respondent 9 explained how genuineness, in general, will influence the quality of peer mentoring as this will automatically lead to more commitment and investment in mentees:

> *Because if you actually, if your mind-set is actually I wanna help people, then you will display that. Then your actions, you can't fake your actions, because your actions will only show what's within your unconscious basically, because that's how you're gonna act it out [R9].*

When mentees experienced their mentors as genuinely interested and invested in them, better connections were formed and mentees felt more comfortable approaching mentors for guidance. Respondents 2 and 16 articulated the nature of the peer relationship that was formed due to the genuine care and interest shown by their mentors as follows:

> *I formed quite a nice bond with my mentor. We're still actually good mates. We're good friends now, so that's quite cool. He took a lot of initiative. He was actually very invested in us as mentees, which I really appreciated. He put our needs in front of his, which was quite nice as well. And that actually led me to be a mentor this year as well [R2].*

Respondent 2 described how invested his mentor was and the friendship that was formed between him and his mentor. It seems that, for him, the investment, care and interest shown by the mentor contributed to the positive peer mentoring relationship that was formed. Respondent 16 also shared an intense peer mentoring experience. For her it seemed that the care and openness of the mentor (for example being able to share her personal experiences) contributed to the positive peer mentoring relationship that was formed:

> *For me it's knowing that she's so comfortable that sharing her life and her things with me personally, well, in our group, but with us, it made me also comfortable. And you know when someone makes you feel like, okay, you're being nice, but then it's like they're interested in a way as well. So then you don't feel like, ugh, I'm burdening you now with my issues. It's like you can see that they want to know and it's also their body language and stuff. So it was like her interest kind of made her a good mentor in a sense [R16].*

Unfortunately, not all mentees experienced their mentors as genuinely caring and invested in them. When this attitude was absent, mentors were perceived as only performing their duties as an obligation, as articulated by respondents 12, 11 and 3 below:

> *He had to help me. That's what it felt like. I didn't feel like he wanted to [R12].*

Respondent 12 articulated how she experienced her mentor as performing her duties as an obligation, rather than a significant role that she took up. Similarly, respondent 11 also articulated a similar experience:

> *Then it's arrange a meeting and then eventually it's just like because you have to go for coffee, because the person just have to tick everyone off a list and be like, I saw them all [R11].*

Respondent 11 further indicated that she perceived her mentor as having some interaction with her merely to report back that this had been done. Respondent 3 shared similar perceptions, but instead of performing duties to report to superiors, he perceived the motivation behind the duties performed by his mentor as wanting to look good to others, possibly to superiors such as the head mentor. He stated the following:

> *I don't know how to explain it, but it's like they have to do it type of thing so they look good. And that I find really troublesome [R3].*

Mentors who were perceived as lacking a genuine interest in their mentees and who initiated minimal contact, led to mentees not reaching out to them either. This resulted in a more disconnected, distant peer mentoring relationship.

The second mentor attribute that fostered a good peer mentoring relationship was expressed as being "relatable", as seen from the following responses:

> *I feel like we're just looking for a person whose going to be able to relate to us [R17].*
>
> *A mentor who's relatable so it wouldn't seem like an obligation [R18].*
>
> *He was much more relatable and we just spoke easily [R10].*

What students meant with relatable, was that mentors need to have an openness to them, that they understand them and have empathy with them. Participant 19's response below gives meaning to what the students verbalized as relatable; it captures the openness (e.g. in sharing personal experiences) and empathy students long for in a "relatable" mentor.

> *What I enjoyed was lots of the times she talked about what was going on in her life, and how her life was like completely falling apart sometimes, but it just assured us ok you know, she's also struggling with the same stuff were struggling with, we are all humans. We just talked, we laughed and stuff, I remembered she showed us videos of what she took in her first year of her just, just*

> *having fun and stuff like that we just actually getting to know each other and hanging out [R19].*

When mentees like respondent 19 experienced their mentors as relatable, they in turn were more open and engaging with their mentors, which contributed to a positive peer mentoring relationship. In contrast, when mentees experienced that they could not relate to their mentors, it had a negative effect on the peer mentoring relationship. As can be seen from the response of respondent 6 below, a perception of not being relatable led to distance in the peer-mentoring relationship.

> *So then I didn't establish a good relationship with her. We're very different. I didn't relate to her very well at all, so that's why I didn't feel comfortable going to her with issues and things like that [R6].*

Closely linked to the issue of relatability was an openness to mentees who were different from the mentor, or even the rest of the mentor group, and a sensitivity for these differences. A lack of these qualities could be damaging to the peer mentoring relationship and could lead to feelings of exclusion from mentees who feel marginalized on the basis of their being different. Respondent 17 explained how she reacted to her mentor's lack of sensitivity towards her different views on current issues:

> *And I used to get really annoyed about what's going on in the group and I would just be like, I'm zoning out, I don't have time for this. And I used to zone out in my sessions. So I don't know if this is going to make sense, but a mentor that's aware. You know what I'm saying? Knowledgeable. Because sometimes they would say some blanket statement and I would just look at her and be like, I'm judging you right now. And then I'd just ...Aware, like of current social situations or why I would feel offended over something as a, let's say woman, why I would feel offended about something. And she would never understand it and she would make me seem like I'm being the bad guy or something [R17].*

Respondent 17 disengaged from her mentor and fellow mentees, as she did not feel validated in the mentoring space and, by doing so, she did not utilize her mentor or mentees for support. Similarly, respondent 15 shared her feelings when she felt excluded on the basis of language:

> *I think it's preference as well. I don't know, maybe ... I'm just thinking about it as well. I think maybe she just preferred some people. Because honestly, I didn't get, with the other mentees in my group, I knew them, but I did not know them, I would not just randomly go speak to them…. And then sometimes she would just start by speaking with them in Afrikaans and then it was like the rest of us, were like what's going on? But then luckily, cause for me, I can understand Afrikaans, so then I just sat there like, okay, whatever, this being my background and whatever it is [R15].*

Respondent 17 also elaborated on a similar experience she had and the impact it had on her:

> *I also understand what she is saying, because I'm remembering now an occurrence that happened. Everyone in my mentor group, mentee group, they were Afrikaans or either Coloured. I was the only black one. I remember, I was the only Xhosa person. And then sometimes she'd have conversation with another Afrikaans person and say a joke and everyone would laugh and I'd be just like .... I'll just be like, okay. But the thing is, with that nothing was translated or anything. So they'd have this back and forth and everyone was like, [laughs], and me, I'm just like, what am I laughing at ...So you were becoming the black sheep. Now you realize, actually I'm not really, this is not for me. And then you become more despondent towards situations where you have a group thing. You just become like, okay, let me sit here and have the compulsory session and then go back to my room and go vent to someone else who actually understands [R17].*

Harvey, Drew and Smith (2006) allude to the diversification of the first-year experience and highlighted the importance of increased and effective support to diverse students and their diverse first-year experiences. In both of the above-mentioned situations, the mentor did not manage the dynamics in a way that made a diverse group of students feel welcome and included in the space. Respondent 17 felt excluded on the basis of her critical views on current issues such as gender, while both respondents 15 and 17 felt excluded based on language. Respondent 17 made an important point that she experienced her mentor as having a preference for some mentees and she was not one of them. For both of these students the mentor's lack of appreciating the diversity in the mentor groups was quite frustrating and this became a barrier to forming a good peer mentoring relationship, and consequently the mentor was unable to offer them support.

Redmond (1999) argues that the use of mentoring programs seems promising in addressing the challenge of retention and delayed graduation time of the diverse group of students accessing HE. However, if this is to be achieved through peer mentoring programs, the diversity of students accessing HE needs to contribute to positive mentoring relationships, which did not happen for respondents 15 and 17. Stellenbosch University (SU) has seen a diversification of the student body in recent years. As alluded to in Chapter 3 (3.3.1), access for the previously underserved African and Coloured groups was significantly broadened after the implementation of the *Strategic Framework for the Turn of the Century and beyond* in 2001. This broadened access has diversified the student population beyond race. Diversity in terms of language and socio-economic backgrounds has also been growing, and the University is now required to offer support that would be effective for a broad range of diversty among students gaining access.

The institution is rooted in a strong Afrikaans heritage, and while the official language policy was changed to promote both Afrikaans and English as medium of instruction, the application of multilingualism outside classroom experiences is not as easy to implement. In the two examples given

above, two African students expressed feelings of exclusion based on language, which had a negative effect on the peer mentoring relationship. Hence, they did not really engage in the peer mentoring program and consequently benefitted minimally from the program. This type of disengagement from African students is of concern, as the institution strives to build an inclusive environment that would facilitate conditions for success, that Tinto (2012) advocates for, for all students. With Vision 2040, the institution has reaffirmed its commitment to be transformed to such an extent that the diverse students currently gaining access are also integrated as part of the SU community (as discussed in Chapter 3, 3.2). Experiences such as those of respondents 15 and 17 point to failure in this important role of integrating diverse students within the peer mentoring space, and is of concern especially given the challenges confronting FGS and FGS from low income backgrounds. Davies (2010) argues that support to FGS is crucial, given the unique challenges they face during their HE experience. While many students experience adjustment challenges, Jehangir (2010) argues that the adjustment challenges for FGS are heightened by social factors such as their educational backgrounds, family backgrounds, financial circumstances etc. Integration and involvement at the institution, according to Tinto (2012), can contribute to the success rates of FGS. The integration of all students could therefore hold personal benefits to the diversity of students gaining access to the institution and it can improve the success rates of all students at the institution. It is therefore pivotal that mentors be sensitized to the diverse experiences and needs of first-year mentees so that they can offer support to all students, irrespective of differences between them.

As discussed in section 3.3.4 of Chapter 3, the success rates of African and Coloured first-year students are lower than that of their White counterparts at the institution and this is likely to influence the lower graduation in regulation time for African and Coloured students. Support during the first year is therefore critical and in the SU context, like at other HEIs in SA, support needs to be effective for the diversity of students gaining access. Tinto (2012) argues that, with the right support, the success rates of all students can be improved. This was echoed by Jansen (2004) who states that, with the right support, the success rates of FGS can be improved. It is therefore important to ensure that the peer mentoring program meets the needs of all students who are intended to benefit from it, including students who cannot understand Afrikaans (like respondent 17), students who are more socially conscious about contentious issues (such as respondent 15) and the many FGS, including FGS from low income backgrounds, who are gaining access to the institution. Failure to do so could result in a lack of support to students who might be in dire need thereof. Tinto (2012) highlights support and involvement as two of the conditions that foster student success. However, when mentors fail to offer support to a diverse range of students, they are unable to facilitate the engagement that could contribute to the success of a diverse group of students gaining access to the institution.

In light of some negative experiences encountered by students such as respondents 15 and 17, the issue of same-race pairing emerged during the focus group discussions. After reviewing literature on mentoring, Jacobi (1991) concludes that there is no consensus on same-race pairings. Jacobi (1991) further argues that racial pairing can be especially useful for students of colour who are minority students on predominantly White campuses, as mentors can offer support in socialization into the new environment.

While African and Coloured students form a minority group at SU, the students in this study did not express a preference for same-race pairing. They were open to being mentored by someone from a different racial, cultural or socio-economic background than themselves. They did, however, require their mentor to be open to them and to embrace them for who they are, irrespective of how they might differ from one another. This is captured in the following responses from respondents 17, 14 and 12 below:

> *So by relate I think being willing to hear different opinions and just share different opinions and share different ideas. Because there's a lot of beauty in learning about different cultures, if that makes sense. But because of closed-mindedness, that's when the different cultures become ugly and it's just like ugh [R17].*

In addition to highlighting the need for an open mentor, respondent 17 also expressed the positives that can be found in diversity and how both mentor and mentee can grow from cross-racial and cross-cultural pairings. Respondent 14 shared a similar view and stated:

> *As much as it would be nice to say your mentor needs to be someone who's like you, whether in terms of class, in terms of generation or in terms of ethnic groups or whatsoever, but if that is going to come from the program to say that is how advisors are going to choose their mentees, then basically you are being put into boxes. So now it's going to be a problem from the word go, because you know also, university's about growing. So if already you're putting me in the box, as the year goes by, me, I'm just in this box, I don't want to come out [R14].*

Respondent 14 goes as far as to say that pairing him to someone similar to him could be limiting his growth as a person, as it would place him in a comfort zone and he would prefer not to do so as he came to university to grow. Respondent 12 agreed that differences between mentor and mentee should make no difference to the relationship if mentors make an effort to know and understand their mentees. This is what she had to say:

> *I think it comes out when you do start building a relationship, that listen, you went to this school, this is the situation at home. And I'm saying when you get to know someone, then you can be sensitive to the fact that, listen, maybe he isn't as well off as the other guys so he can't maybe participate in this res activity, I'll need to help him so that he can be able to attend. So I think*

she's completely right that it does come through when you actually start building a relationship with your mentor [R12].

Being open and empathetic ('relatable'), as well as having a genuine interest in the wellbeing of your mentees, were thus identified as mentor attributes that foster a positive peer mentoring relationship. In contrast, mentees formed a neutral or even negative relationship with mentors they perceived as distant, uncaring or lacking in genuine interest in the wellbeing of their mentees. These attributes were even more important when the mentor and mentees differed on important aspects of their identity or backgrounds such as race or social class.

6.3.3.1.2. Time invested in mentoring

The time that the mentors invested in mentoring their mentees had an effect on the nature of the peer mentoring relationship. Mentors who invested time and availed themselves to their mentees fostered a stronger peer mentoring relationship, as explained by respondent 16:

It was really a good experience because my mentor was there at all times. So whenever I needed help she was there…and you know when someone makes you feel like, okay, you're being nice, but then it's like they're interested in a way as well. So then you don't feel like I'm burdening you now with my issues. It's like you can see that they want to know and it's also their body language and stuff. So it was like her interest kind of made her a good mentor in a sense [R16].

In contrast, when mentors did not invest enough time, a poor connection was formed between the mentor and mentee, as expressed by respondents 15 and 18:

I don't know how to put it. Maybe she didn't see, she couldn't connect with us. She never really did make an effort in that sense, trying to be like, so, you know, what are you doing? I think she was very complacent [R15].

Respondent 15 articulated how her mentor never put in enough effort to form a stronger connection with her. Similarly respondent 18's mentor did not invest time in forming a strong connection with her. She perceived her mentor as being too busy to invest more time in the peer mentoring relationship and stated the following:

I think I could've connected with her, but I think the issue was ... Cause I think she always seemed busy. She was always busy. So I could've develop a relationship with her, but because she was always busy that couldn't happen [R18].

In spite of only three PSO students participating in the focus group discussions, these students raised a very important issue regarding the time PSO mentors invested in peer mentoring. Respondents 4 and 7 alluded to the challenges PSO mentors face in initiating sessions with their mentees:

> *And throughout the year my mentor did try to reach out, but nobody was ever free. So I think she lost her motivation to get us together, but there was that effort, but we never actually met up. So effort from the mentor and from the mentee. So the mentee has to actually want to come and want to see everybody [R4].*

Respondent 4 raised the challenges that her PSO mentor confronted as a mentor. According to her, her mentor initially showed an interest, but became demotivated as it was tough to get the mentor group together at a particular time. Respondent 7 highlighted another challenge that his mentor confronted:

> *From a PSO perspective, it was very difficult, I think, because I think we were something, about fifty on our WhatsApp group, so we were quite a big group [R7].*

Respondent 7 raised the challenge with regard to the size of his PSO mentor group. He was of the opinion that his mentor struggled to engage with mentees as the group was too big. In the PSO environment students therefore expressed some understanding of the challenges mentors encountered in trying to get mentees together, and they did not necessarily attribute the lack of time invested in mentoring to a lack of interest. For the residential students, this was not the case, as it was much easier for their mentors to meet up with them due to their close proximity. Residential students experienced the lack of time invested as a choice exercised by their mentors.

Leidenfrost, Strassing, Schabmann, Spiel and Carbon (2011) underlined the role that different mentoring styles play in the intensity of the peer mentoring relationship and outcomes of the peer mentoring program. Respondents in this study did not directly refer to mentoring styles. For them, the quality of the peer mentoring relationship was primarily influenced by the mentor attributes and the time the mentor invested in mentoring. However, these factors do influence one's mentoring style, and mentoring style can therefore be considered a consequence of mentor attributes and time invested. The reasons for mentoring emerged as another factor that contributed to the nature of the peer mentoring relationship.

6.3.3.1.3. Reasons for mentoring

In my discussion of the mentor attributes that influenced the nature of the peer mentoring relationship above (section 6.3.2.1), I identified genuine interest as one of the primary characteristics of a good mentor. There was a perception among mentees that some mentors did not have a genuine interest in the wellbeing of their mentees, and this was attributed to their reasons for applying for the role. Questions were raised about the intentions for mentoring, as seen from the responses of five respondents below:

> *I think personally a good mentor is someone who doesn't particularly have an agenda in the sense that by them becoming a mentor they aim to gain something. Because I think that really, that affects it a lot…Cause from my observations, you see that, this person really isn't it, they're in it for what I'm going to gain from it rather than actually being a genuine mentor. I think that really plays a role [R18].*

Respondent 18 shared her observation that some mentors appeared to have taken on their peer mentoring role for personal gain and that this affected the peer mentoring they offered. When this happens, she argued that mentors lack the genuineness highlighted as an attribute of a good mentor. Respondent 2 took it further by giving a reason why she thought her mentor signed up for this role: to get a single room in their residence. She stated:

> *I felt like after looking back at it and after we've done….everything I felt like the reason she was a mentor was to become or to have a single room, to get enough room points to have a single room [R2].*

Similar to respondent 2, respondent 14 also brought up personal gain in terms of accommodation (rooms in residence). While respondent 2 was of the opinion that the motivation behind the peer mentoring was to get a single room, respondent 14 thought it was to remain in the residence. Residential students are only allowed to stay in their residence for the amount of years equal to graduation in regulation time for their degree. However, this can be extended if a student serves in a house committee or mentoring role the following year. It is this motivation to prolong their stay in a residence that respondent 14 was referring to. He raised another motivation - that is to hold some form of leadership position in the residence. He stated:

> *Specifically in our res, that some people apply for advisor because they want to stay in res, I think in our res there's been that perception, when you look at HK[3] you look at advisor. Advisor is sort of that easy thing that you can just fall into. So from a first year, even thinking of being either a HK or advisor, I'll say HK. If they don't take me then I'll go for advisor [R14].*

Respondent 3 also raised the gains in terms of leadership roles. While respondent 14 thought peer mentoring offered an alternative leadership position (some status and authority in their residence) when somebody was not selected for the house committee, respondent 3 was of the opinion that the peer mentoring position was used to increase chances of successfully being elected as house committee member the following year:

[3] HK refers to the house committee. Each residence or PSO has a group of student leaders, referred to as the house committee who, in collaboration with the residential head or PSO coordinator, manage the residence. It is perceived to be the highest leadership position in the residence or PSO. The primaria/primarius leads the HK of approximately eleven students.

> *I noticed that so much last year, in my first year. So many mentors, they barely do anything throughout the year, then near the end with elections they're like, hey, what's up? And I'm just like, huh-uh [R3].*

Respondent 3 thought that mentors used the peer mentoring platform as a network they could use to secure votes, for example by being nice to their mentees close to house committee elections. This, however, happened towards the end of the peer mentoring term, and according to respondent 3, mentors would initiate contact prior to the election even when they were absent for most of their peer mentoring term. Respondent 2 also alluded to personal gain in terms of leadership and stated that mentors are likely to be elected onto the house committee the following year, suggesting that the peer mentoring role was used as a stepping stone for the role of house committee member:

> *The way it works in our res, people who are usually on the second years committee and mentors…most of them go on to be HK [R2].*

From these responses, there were concerns that some mentors signed up for the peer mentoring program for personal gain, such as status in their residence or PSO as a stepping stone for future leadership roles (such as house committee member) or to get a single room[4], rather than having a genuine interest in guiding and supporting first-year students. Mentors perceived as not signing up for genuine reasons were seen as less committed and investing less time in mentoring.

This raises questions about the selection criteria and selection processes for mentors. While there are some generic guidelines drafted by the Centre for Student Communities, each PSO or residence uses its own discretion when appointing mentors, and hence different criteria and selection processes are applied in the various environments. This leaves the program at risk of selecting mentors who are not necessarily doing it for the right reasons. Respondents argued that mentors reneging on their duties were not being held accountable, and they called for closer monitoring in this regard. The monitoring of the program is also done in the residential and PSO environment by the head mentor and residential head or PSO coordinator. Given the lack of direct contact the program coordinator has with the mentors, s/he is dependent on other stakeholders such as the head mentors and residential heads/PSO coordinators to keep mentors accountable and to ensure that duties are executed. It does seem, however, that this needs closer monitoring in some environments.

[4] Most residences do room allocations for senior students based on a point system. Participation in the residence is rewarded with points, with different activities earning different points. When room placements are made, students who have accrued the most points get preference in terms of single rooms, instead of sharing a double room.

6.3.3.1.4. Be Well wellness component of the program

The peer mentoring program at SU foregrounds student wellness by intentionally promoting wellness. A primary goal of the program is to facilitate the adjustment of students through the optimization of their holistic wellness. In this regard, the program is quite unique as most peer mentoring programs do not directly offer wellness initiatives, but rather facilitate wellness indirectly through improved adjustment. While this is an innovative initiative, it seems to have unintended consequences. Mentors are required to facilitate six Be Well sessions[5] during the course of the year and both mentors and mentees are required to log these sessions on the Be Well electronic portal for monitoring purposes. The responses below raise some challenges with regard to the Be Well sessions, especially as far as the logging of the sessions is concerned:

> *I just want to add, I know, because when you log Be Well sessions there's also the individual sessions and I found a lot of the time some mentors try to force that individual session where they just come up to your room and it's very impersonal [R3].*

Respondent 3 shared how she observed mentors, including her own mentor, facilitating sessions merely to log it onto the electronic portal, as mentors are being monitored though the electronic portal. She further explained how sessions that are purely done for logging sessions could be experienced as impersonal and negative by the mentees. This does not foster a connection between mentor and mentee, nor does it facilitate genuine engagement between the two. To the contrary, it might frustrate the mentee who feels forced to be part of a sessions that is only done for monitoring purposes.

> *To be honest the Be Well thing is too much admin..you need to log in and figure it out …I don't understand why we need to do the logging, they want to see if it works and stuff but it just creates more admin for both the mentees and mentors [R2].*

Respondent 2 did not understand the purpose of the logging and thought it created more admin than anything else. Mentors especially tended to focus on this administrative duty rather than investing time in the peer mentoring of their mentees. Respondent 15 agreed with her in the sense that the logging and cards made it formal, which hampered the process of forming a closer connection ("the intimacy") with the mentor:

> *I agree in a sense that it happened all of a sudden that we had to do formal things instead of it just being about talking. Now there were cards and we had to log in and it took away from the intimacy of having that kind of mentor/mentee relationship [R15].*

[5] Be Well refers to the wellness component of the peer mentoring program at Stellenbosch University. When students refer to the Be Well sessions, it therefore refers to the sessions that focus on the wellness aspect of the program.

Respondent 16 agreed that the logging took away from the "intimacy" that was supposed to mark the peer mentoring relationship and even called for the logging of sessions to be discontinued:

> *For me, I don't think they should log in. I don't think they should record how they're all feeling or what they said about their feelings or this, that or the other. They can use the Be Well system, show them, okay, this is the six criteria we're focusing on for the year, let us see and try and incorporate it in our sessions. Fine and well. Let us check if they're emotionally, academically whatever well and whatever in this sense or that sense. But don't go have it on a system and go record it, because it takes away the personal aspect of it for me, personally [R16].*

The respondents cited above questioned the purpose that the logging of sessions serve, and for them it became a barrier to connecting with their mentors rather than a positive experience. They seemed to have a need to form a relationship with their mentors, and mentors focusing on logging sessions gave the impression of an impersonal, mandatory interaction that is not conducive to forming a strong peer mentoring relationship. Instead of engaging with them and trying to form a relationship with mentees, mentors were rather focused on doing the Be Well sessions, partly because they were being monitored via the logging system. Some mentees experienced their mentors to only have sessions with them because s/he needed to log them, rather than wanting to have a session with them.

6.3.3.2. Nature of interaction

As mentioned above, mentors are required to facilitate at least six Be Well sessions during the course of the year. They can use their discretion as far as other forms of interaction with their mentees are concerned. From the focus group discussions, three modes of interaction were identified: WhatsApp messages, group sessions and one-on-one sessions with individual mentees. Group sessions were the most common form of interaction, which could be due to the official program requiring the facilitation of six Be Well group sessions, as illustrated by the responses below:

> *But essentially group sessions we didn't see a lot of each other. It was just twice or three times the whole year. If you wanted to have an individual thing, if you wanted a personal thing, you were allowed to. She did not stop you from having a thing, but you had to ask [R17].*

Respondent 17 cited above explained how their mentor only facilitated two or three group sessions during the year and that, if individual sessions were required, the mentee had to take the initiative to have individual sessions with the mentor. Respondent 16 cited below raised the challenges of mentors only facilitating group sessions:

> *So maybe not as much mentor groups and stuff, maybe just you personal, like being that person's personal mentor in a sense. Because sometimes in a group you don't really wanna speak or you think, okay, she has more obligations because it's not just me in this group, there's four other*

> *people. So whereas if she made it more one-on-one, you'd feel like, okay, it is my time now, so I'd use it to my advantage in a way [R16].*

To respondent 16, group sessions were less personal and not many mentees felt comfortable to openly discuss their personal experiences and challenges in a group setting; consequently, personal conversations did not happen. Respondent 8 echoed this:

> *And because it's in a group I don't think you can interact while, and be like, I'm not fine, and that stepping forward to someone that you kind of are still a stranger to. Cause we never actually got to know the mentor properly. So approaching someone that is still a stranger to you and not a professional, you just feel like, why am I going to this person in my res to say I'm not fine when I can do it to someone else in a sense [R8].*

Respondent 8 not only spoke about how uncomfortable if felt to open up about personal experiences in a group setting, she also spoke of how hard it was to open up to a mentor that you barely knew, as the nature of the group interactions did not foster a connection between mentor and mentor at a more personal level. Respondent 12 also felt uncomfortable sharing personal experiences and challenges in a group setting and even went as far as to give the impression during the group sessions that it was going well when it was not necessarily the case:

> *But because I was in a group setting I felt the pressure to just buckle up and I'm fine, everything's cool, even though I wanted him to ask me specifically, listen, are you actually fine? Because obviously in a group setting you're kind of compelled to be like, yes, I'm fine. Because I don't think you feel comfortable, especially not knowing the people that well to be like, listen, no, I'm not fine [R12].*

Building a strong peer mentoring relationship requires personal and individual interaction between mentor and mentees, as this is how they get to know one another and form a bond. The respondents cited above never formed a strong peer mentoring relationship, as they only met with their mentors in a group setting, which made it hard to form a closer relationship. Additionally, some students felt uncomfortable to talk about personal challenges in a group context and consequently did not receive the type of support needed from their peer mentoring relationship. Some respondents also articulated a need for more personal attention as this would foster a stronger relationship and more intense peer mentoring.

WhatsApp messaging was another form of interaction that held negative consequences for the peer mentoring relationship. Respondents 10, 7 and 20 shared the nature of their interactions, which were via WhatsApp:

> *A WhatsApp in the WhatsApp group that we created at the beginning of the year [R10].*

Respondent 10's mentor only communicated via WhatsApp. This was also reported by respondent 7:

> *We were added on a WhatsApp group as well, but that WhatsApp was ... I know we didn't have any functions or mentor sessions organized [R7].*

For respondent 10 and 7, communication from the mentor took place on the WhatsApp group that was created during the welcoming period. Respondent 20 echoed this:

> *We never really got to meet and did lots of things cause in the group chats and stuff like that, it was, she always sent us like positive messages and stuff like every week and stuff like that but in terms of in person meetings and stuff like that we didn't have a relationship [R20].*

As seen from the above responses, some mentees had no face-to-face contact with their mentors, as their mentors only communicated via the occasional WhatsApp message. Students who raised this issue lived in university residences, and therefore access to mentees posed no challenge for the mentors. This speaks of a lack of engagement and a poor peer mentoring relationship that holds little benefit to first year-students. Positive peer mentoring relationships require engagement between a mentor and mentee, and the group interactions and WhatsApp message platforms utilized by mentors did not foster the type of engagement that would build a strong, intense peer mentoring relationship. This affected how and the extent to which students benefited from the peer mentoring program

6.3.4. Benefits experienced with regard to adjustment during the first year

The results from the SACQ survey did not show a statistically significant difference in the adjustment of the experimental and control groups in the post-test. However, it did show an increase in the adjustment of the experimental group over time, for three subscales, compared to a decrease in the adjustment of the control group (the social adjustment subscale was the only subscale that did not show an increase on the post-test). It was therefore important to understand how, if at all, students from the experimental group benefited in terms of their adjustment. I will present the themes that emerged under each of the adjustment subscales of the SACQ, namely attachment, personal-emotional, academic and social adjustment.

6.3.4.1. Attachment

Lizzio (2006) argues that the level of institutional attachment and the quality of relationships established impact on students' overall adjustment during their first year. In this study, respondents found it difficult to articulate any benefits with regard to forming an attachment to the institution. They had to take some time to reflect on how they benefitted in this regard, as articulating how they benefitted in terms of attachment did not come easily. From their responses it became clear that their attachment to the University was based more on their attachment to their university residences than to the institution at large, as seen from the responses below:

I think the only attachment I feel to this university is living in res. That's the only thing [R16].

Respondent 16 articulated how her residence alone is her attachment to the University. Respondent 2 also shared an attachment with his residence and stated that it was easier to form such an attachment:

Because obviously you are from res, you spend a lot of the time in the residence and without going to campus and sometimes having to miss class because it's just too far. But they obviously, so they try and build a bit of a sense of more the pride in residence as compared to university. Because one challenge we face is the whole thing of residence versus university. There's always these things... It's something that we're part of, but you almost see it as if we are separate from the university [R2].

Respondents 16 and 2 expressed a connection to their residences rather than to the institution. Respondent 5, however, articulated how the program helped her in forming an attachment to the institution:

So it does help because now you kind of know who's your friends in the faculty and you're able to make friends in res. So in that sense it could be quite helpful in connecting the university with the residences and PSOs [R5].

Respondent 5 raised a very important point. Some residences organize their mentor groups according to faculty. Respondent 5 articulated how this practice of same-faculty pairings helped her form an attachment to the institution by extending the connections from her residence (fellow mentees) to the classroom, consequently forming a stronger attachment to the institution. Given the attachment benefits reported by mentees who were part of same-faculty mentor groups, it could be beneficial for all residences to take this approach to assigning mentees, as this is not standard practice.

6.3.4.2. Personal-emotional adjustment

Some respondents benefited in terms of their personal-emotional adjustment by having a mentor they could talk to when they felt overwhelmed. Respondents 4, 3 and 19 explained:

I think in a sense where I knew I could ask someone something. Because I'm an anxious person in general, so I like to know everything before I go into a situation. And I knew that I could ask ... I could message her whenever. Even when I didn't know where my class was, she sent me a picture of the map. So just that support helps you emotionally cause it takes away some of the anxiety [R4].

Respondent 4 cited above explained how having her mentor as a resource helped in containing her anxiety. Similarly, respondent 19 also found that sharing her experiences with her mentor helped in containing her emotions and left her feeling "at peace". She said:

The one time during welcoming week, you know that stage, probably it was the first week literally of university I felt like I didn't have anyone, I didn't have any friends, and we would walk to some

spot and I spoke to her and have a really good conversation with her and that helped me feel at peace [R19].

Respondent 3 found new perspectives on challenges when talking to his mentor, and this in turn helped alleviate stress:

I think for me as well, because I suffer from chronic stress. So if I'm ever overwhelmed with a lot of things or because I'm involved in so many things on campus, involved in so many discussions and whatever, so I got to a point where I was nearly falling apart type of thing. But my mentor helped me so much in me realising that I need to pick my battles, I can't just be like I'm gonna do this whole entire thing and go out and do it. So I was able to finally find a balance and he helped me so much in finding a balance in my life, which is really cool [R3].

From the above responses one can infer that having a mentor they could talk to when they felt overwhelmed, offered them a safe space which helped in regulating their emotions and finding perspective. This, however, only occurred when there was a good peer mentoring relationship, underscoring the importance of more intense peer mentoring.

6.3.4.3. Academic adjustment

Studies have found academic adjustment to have an impact on academic performance (Credé & Niehorster, 2012; Petersen, Louw & Durmont, 2015; Grayson, 2003), underscoring the significance of academic adjustment. First-year students are required to adjust to more complex academic demands, a faster academic pace and more challenging academic tasks (Credé & Niehorster, 2012), and mentors can play an important role in assisting first-year students in this regard. In this study, participants benefited from mentors explaining course content to them or providing them with resources, and this in turn helped them adjust academically, as explained by respondents 3, 4 and 7. Respondent 3 described how his mentor explained academic work and shared academic resources and how this helped him:

It's helped me so much, especially academically. My mentor would assist me a lot in explaining law cases to me or if I didn't get a particular section, she would send me her notes and would say, compare the two and let me know if there's any problems. She would also try get past papers for us and everything. She was always on the ball. I love her so much and she's still like that now [R3].

Similarly, respondent 4's mentor also helped in explaining academic work:

I can say that because your mentor is also in your faculty, they try and align your studying with it. I could ask her for advice and also get notes from her and things like that. So that helped me academically [R4].

Respondent 7 also benefited from the mentor sharing resources and explaining course content:

> *...if I asked him something, maybe some past papers or some advice of other subjects I was struggling with, he would arrange to meet somewhere or to go to his flat just to sit with him and he will give me some papers or he would explain to me [R7].*

In the responses above, participants articulated the value of having a mentor who studies the same course, as this helped them adjust academically. Same-faculty pairing is, however, not a condition for pairing mentors and mentees in the program, and is therefore not applied throughout the program - as residences and PSOs may do pairings in different ways. While support with academic content is not a primary goal of the program nor a primary duty of the mentor, these responses do, however, raise the significance of same-faculty pairings in contributing to the academic adjustment of first-year mentees. Additionally, respondent 14 also benefited in terms of study methods which helped him to adjust to the increased academic workload during his first year:

> *For me, I approached him with questions, specific questions in certain modules and also how to engage with the module and stuff like that. Because I realized that in terms of studying, the way I used to study in high school had to change because things were not working out. So those were the kind of enquiries that I had with him. How do I go about engaging with this? And if this doesn't work, then what do I do? Then I would say he helped me in that regard [R14].*

6.3.4.4. Social adjustment

The social-adjustment subscale was the only subscale that did not show an increase from the pre-test to the post-test. During the focus group discussions, however, participants found it easy to articulate how they benefited socially. They benefited in terms of their social adjustment through the friendships formed and through bonding in their mentor groups, as can be seen from the following responses from respondents 18, 11, 2 and 19:

> *Generally our mentor group, we studied, there were four of us who studied the same thing. I know we studied similar things. So essentially it didn't really affect me as much because I confided in my fellow mentees who then later on became my very close friends. Since we were studying the same thing, we were always together [R18].*

Respondent 18 articulated how she became very close friends with the other mentees in their mentor group and how the same-faculty pairing of the group contributed to this. She further articulated how these friendships mediated the lack of support she received from her mentor. Respondent 11 concurred with this, openly stating that her mentor did not contribute to her social adjustment, but rather the same-faculty pairing of her mentor group:

> *I feel like I benefited socially, but it wasn't because of my mentor, it was because of how my mentor group was set up. Because the people in my mentor group are the same people that I go to class with to this day, we study the same thing. Some of them didn't study the*

> *same thing, but we're still friends. But I feel like that wasn't influenced by the mentor, we just ended up in the same group together and that helped a lot [R11].*

Respondent 2 also made friends with other mentees, and again this was attributed to the same-faculty pairings:

> *And we became quite tight as a mentor group. Cause we were law faculty together, so it was only like four of us and we became quite tight, so that was nice [R2].*

For respondent 19 the mentor played a role by fostering engagement amongst the mentees, which created a space for friendships to be formed:

> *The mentor made an effort to get to know ok this is this person and they already know about our personalities, so it's easier for everyone to sort of get to know each other, we had programs from the start so it was really a great experience for me and it made us closer like…we became friends actually [R19].*

With the exception of respondent 19, the respondents did not acknowledge the role that their mentor played in the group cohesion that was formed. The other respondents primarily attributed this to the fact that their fellow mentees studied similar courses as they, which helped them to form a bond and become friends. When the mentees developed positive relationships in their mentor group, they often formed friendships which in turn had a positive effect on their social adjustment during their first year. Peat, Dalziel and Grant (2000) also found that the peer mentoring offered a platform for making friends and to engage. As mentioned in 6.2.4.4, this sub-scale measured the students' ability to manage interpersonal experiences such as making friends and interacting in groups. While they may have formed friendships, participants did not necessarily learn how to navigate interpersonal experiences beyond the mentor group, which could explain why the scores for the social adjustment sub-scale was the same for the pre- and post-test.

6.3.5. Experience of the Be Well component of the program

The third sub-question in this study is specifically related to the Be Well component of the program: *To what extent has the wellness focus of a peer mentoring program, contributed to the adjustment of first- year students at Stellenbosch University?* In light of this sub-question, I included students' experiences of the Be Well component of the program in my interview schedule. Before discussing how students benefitted from this part of the program, I will discuss their understanding thereof, as this is related to how they benefitted. Many students lacked an understanding of the program, which in turn influenced the extent to which they benefited from particularly the wellness component of the program. Participant 18 articulated this well:

> *I didn't benefit from this program, not necessarily because I felt the Be Well program itself was nonsense, but because I wasn't exposed to it as much as I feel I should have been [R18].*

Other respondents also shared their lack of understanding of this part of the program. Respondent 15 explained how a lack of understanding of this part of the program could be attributed to the lack of explanation of what it entailed:

> *Well, for me at first, I didn't really know about the program, cause I feel like at that time the HK and the mentors of my year, in my first year, they didn't really explain it well. Because I was like, oh okay, I get the mentor part, but I didn't really know about the whole mentorship and alongside with the so-called Be Well [R15].*

Similarly, respondent 16 lacked an understanding of the Be Well component of the program, in spite of having a session that centered around it and the subsequent logging of the session:

> *So my mentor was always there, but also concerning the whole Be Well system, we also hardly knew about it. There was just one group session where we had to log in, but then it was just that and then we were done. That's the only thing we knew about the Be Well thing [R16].*

Respondent 8 also had no knowledge of this component of the program, and no sessions regarding the wellness domains were facilitated by his mentor:

> *We found out in your study that you sent last year. We were like, okay, this is Be Well. We're like, what's that? And then we asked someone else and they were like, you know that mentor you've been going to, that's them. And I was like, oh okay, I didn't know [R8].*

Respondent 14 concurred with this, but also alluded to the fact that his mentor served as an advisor but failed to implement the Be Well component of the program:

> *The thing is, even with the cards, then this is the first time I'm hearing about that. For us it was just an advisor from res that was supposed to help us or something. But with the cards and Be Well, this is the first time I'm hearing about that [R14].*

Respondent 21 also lacked an understanding of this part of the program and reported that her mentor covered all six dimensions in one session at the end of the year, which could have been for logging purposes. She stated:

> *We had one group meeting right at the end of the year, like in the last time they could have a mentor group with us and that's when she ran through all of the Be-Well categories [R21].*

As illustrated by the above responses, many students did not know about the wellness component of the program, either because it was not explained to them or because they were not exposed to it. This raises important issues regarding the execution of mentor duties and the approach mentors took towards the Be Well component of the program. Respondent 21, for example, shared how her mentor

"ran through" all six categories of the wellness program at the end of the year, most likely because it was a mandatory part of the mentor's duties and it had to be logged on the Be Well portal. When the Be Well component was explained to mentees, and it was well entrenched, mentees like respondent 9 had more positive experiences:

> *Yes, I'm familiar with that. Our mentor actually explained what the objectives of the whole program was and he told us what the Be Well thing is about. And then he spoke about that spiritual wellbeing thing, emotional wellbeing and those type of things and then it was actually good. I think it was really good [R9].*

Another central theme that emerged was the approach that mentors took to the wellness component, and this played a role in how students benefited from this part of the program. Most students experienced the wellness part of the program as too structured and formal and when this occurred, the outcomes were less positive, as articulated by respondent 17:

> *The program is almost structured in the sense that it makes it feel very formal and things should be done in this way or certain things should be completed in order to cover the necessary ends and corners [R17].*

Respondent 2 concurred with the views expressed by respondent 17 and further stated that he experienced the Be Well component as more of a formality and that there were no meaningful discussions on the content. He stated:

> *Essentially it was a very structured, official session, but we all knew that that was not the relationship we had with our mentor. He would ask us some questions, but it was more for formalities than what it was for us actually bonding as mentor and mentee and getting information across. Everyone gave the textbook answers and everyone gave the answers, the truth, but I don't think ... It was more formality than anything [R2].*

For respondent 21 the Be Well sessions were experienced as awkward and in spite of efforts by the mentor to foster discussion, no meaningful discussion took place. She stated:

> *Maybe we had six Be Well sessions. I remembered talking about emotional stuff and always, in my mind I think it was like a check list that she had to talk through or like a list or stuff about topics, she tried to initiate conversations kind of thing, it was very awkward and didn't work out super well [R21].*

When the approach was too structured and formal, it was not experienced as beneficial but rather as awkward or official. Other students had positive experiences of the wellness component. In contrast to how students who had negative experiences described it (as formal and structured), these students experienced it as fun and interactive. Their mentors approached this component with more flexibility and creativity, as explained by respondents 16, 19 and 3:

> *What I liked about my mentor is because she made it more personal, she made it more herself, as compared to like, okay, we have to meet, we have to talk about this, that or the other. She always started like, how are you guys doing? How's class? How this or that? She made it super chilled and more open for you to speak about anything that was bothering you particularly, not concerning the topic of today or whatever of this session [R16].*

Respondent 16's mentor integrated the Be Well sessions with an overall check-in with her mentees. Her mentor did not view the Be Well session as a separate focus, and this was received well by respondent 16. Similarly, respondent 19's mentor took a more integrated approach - balancing the general check-in with mentees with a Be Well session. As with respondent 16, this was also experienced positively by respondent 19:

> *I think with my mentor, if she probably, if she did implement the whole Be Well thing she did it quite well cause she actually go like into different aspects of our life, not just emotional wellbeing, but it was quite free, if she did use it, it was probably just as a sort of guideline, not really the actual like the focussing on that specifically just use it as a guideline [R19].*

Respondent 3's mentor took a very creative approach to the sessions by using, for example, sweets to represent different emotions during the emotional wellness session:

> *For example, emotional wellbeing, what my mentor did with us last year as well, is we took a thing of Smarties, of different colours, and each person would pick different colour Smarties and explain what those colours make them feel and stuff like that and then go into a whole discussion about emotional wellbeing and SSVO and stuff like that [R3].*

When mentors had a more creative, interactive approach (and only used the cards as a guide), mentees enjoyed this part of the program and reported benefitting from it. It made them reflect on their own wellness and which aspects needed some attention, and this enabled them to implement changes where needed. Respondents 9, 3 and 5 explained how they had benefited:

> *I felt it was useful because it sort of made you think where you're at. Sometimes ... Later in the year during my studies when I started feeling very overwhelmed and then that was just when I took a step back and reflect and then that's where basically emotional wellbeing came in and then I just managed it from there. So that was very helpful in that sense [R9].*

Respondent 9 explained how the Be Well sessions made him reflect on his personal wellness and how this enabled him to continuously reflect on his wellness throughout the year. He was able to manage any challenges that compromised his wellness and consequently he took control of the situation. Similarly, insights from the sessions also translated into actions aimed at optimizing wellness for respondent 3:

> *Well, I just learnt a lot. Because, for example, going to the emotional wellbeing card, for example, I didn't know much about the CSCD, I didn't know much about the whole CSCD, all those collective groups there. I didn't know about them and I've pretty much utilized each one now since I had that session. Physical wellbeing as well. Since that thing, I know it seems very simple and whatever, but now I make sure that I also prioritize sleep, I prioritize going on walks and having a good diet [R3].*

Respondent 3 also benefited from information regarding resources available on campus that were relayed during the Be Well sessions, for example knowing where the Centre for Student Counselling and Development (CSCD) is. Respondent 5 also benefitted from the reflection on personal wellness that was facilitated by the sessions:

> *So the cards did actually play a role, but I think the reason why they were so effective for us is because we had a proper fun interactive session before going, okay, here are the cards, this is what's up type thing. Having those meetings, not meetings, but having those sessions every week and getting together really put things in perspective and helped ease my mind that I am on the right track. Because I think we had to go on our laptops as well and fill in a question [R5].*

To summarize, when the Be Well component of the program was explained to mentees, and well implemented, mentees had positive experiences and benefited from this part of the program. However, not all of the mentors approached this part of the program, nor their mentoring role, in a way that actually benefitted the mentees, as it was done too formally and without explanation at times. Mertens and McLaughlin (2004) allude to the fact that programs are not always implemented as planned, and that this poses a major challenge to the eventual success of the program. This appears to be the case for the wellness component of this program. Mentors did not always implement the Be Well program, nor had they used the cards to support them in the manner the program intended them to do. This consequently led to some first-year students not benefitting from this part of the peer mentoring.

Collings et al. (2016) found that participation in the peer mentoring faded after the welcoming period and suggested that there could be a greater need for continued support from the program, beyond the first few weeks, to a minority of students struggling to adjust to campus. While this study found a similar trend in terms of the peer mentoring fading after the welcoming period, participants attributed this to the lack of mentoring received from the mentor and there was a general sense from the participants that they wanted and needed continued support. Many participants in the focus group discussions commented on the significance of the program and wanted it to be implemented more effectively to better assist first-year students with their adjustment.

6.4. INTERPRETING THE RESULTS WITHIN THE THEORETICAL FRAMEWORK OF TINTO'S THEORY

Tinto's latest theory (2012), as presented in his book *Completing College, Rethinking Institutional Action,* formed the theoretical framework for this study. His theory is a sociological model that highlights the role HEIs should play in fostering the success of all students and offers a comprehensive account, a blueprint, of how institutions can facilitate student success. The theory therefore focusses on the actions needed to improve retention and success (Perna, 2014; Tinto, 2007, 2012, 2014). Tinto (2012) argues that factors determining the level of preparedness at entry, like the schooling system, should not be the focus of HEIs as these factors are beyond the control of the HEIs. Instead, he argues that HEIs should focus on establishing the conditions on campus that promote success, and that these conditions are particularly important in the first year.

These conditions relate to student expectations, support offered to students, assessment and involvement. Two of these conditions, namely involvement and support, are most applicable to the peer mentoring program that was evaluated in this study. Support primarily entails academic and social support, and these are equally important. Academic support, Tinto (2012) argues, is critical for skills acquisition and building confidence. The social experience at the institution is equally important. Institutions should create environments that foster a sense of belonging, as students who experience a sense of belonging are likely to stay enrolled, are more likely to access support, their confidence improves and they are more committed to the institution.

The Be Well Peer Mentoring Program was initiated to support students with their adjustment during their first year. From the focus group discussions it transpired that mentees benefitted in terms of their academic and social adjustment. However, not all students benefitted equally, as the support that mentees experienced was influenced by the intensity of peer mentoring they received from their individual mentors.

The focus group discussions underscored the significance of the intensity of mentoring, which was influenced by the nature of the peer mentoring relationship and the nature of interaction between the mentor and mentee. With intense peer mentoring, mentors utilized the mentor as an advisor who played a supportive role in their first-year experience. Mentees also engaged more with their mentor by asking for assistance with academic content and guidance in terms of resources. When the peer mentoring was intense, the program succeeded in offering support to mentees. In the event of less intense peer mentoring, this support was not available because the mentors did not facilitate the conditions to do so. These mentors were less invested in their mentees, failed to show a genuine

interest in them, made minimal contact with mentees and were not as open. Consequently, mentees did not get the support nor did the program foster the desirable academic and social involvement.

Tinto considered involvement to be the most important condition for fostering student success (Tinto, 2012). He underscores the importance of involvement in academic and social life both inside and outside of the classroom, because what happens outside of the classroom influences what happens in the classroom. Students who engage in social and academic life make more contact with peers and lecturers, and in doing so are likely to learn more (Tinto, 1993). Involvement promotes active learning with peers, inside and outside of the classroom, and increases the quality of investment in their learning (Tinto, 2012; Tinto 1993). These students invest more and hence they learn more (Tinto, 1993), are at less risk of attrition and have a greater chance of success. Tinto (2012) believes that initiatives that promote engagement with peers, such as peer mentoring programs, can play an important role in facilitating high levels of involvement and learning.

When I started this research study, it was my contention that the peer mentoring program at SU offer a platform for the type of involvement Tinto is referring to and in doing so, it contributes to the adjustment of participating students. From the lack of statistical significance found in the quantitative data, it would be easy to infer that this is not the case. However, the focus group findings do suggest that the peer mentoring program fostered involvement in the social and academic environments, at least for some students, which in turn helped students with their adjustment in their first year. However, the program does not set the conditions for all students to become involved and to engage more, and this was found to be influenced by the mentor.

When mentors created supportive environments through intense peer mentoring relationships, academic engagement of their mentees was fostered. Mentees approached mentors when they required assistance with course content and access to resources such as past test or exam papers. This was more common when the mentor studied a course similar to that of the mentees. Same-faculty pairings in particular fostered good academic and social engagement. By pairing students studying similar courses, first-years recognized familiar faces in their classes from the onset and they could sit with them and engage with them on course content. In the residential environments, this was very useful as they lived together and could engage on academic matters in their living environments. This improved engagement which, according to Tinto, translates into more learning and increases the chances of student retention and success.

Participants in the focus group discussions articulated the role their mentor groups played in their social adjustment. Many friendships were formed through the peer mentoring program due to the opportunity to be involved and to engage with other first-year students. Again, students in same-faculty pairings experienced additional benefits: they formed a closer bond quicker due to their

common interest (that is, their course). They were able to engage on course content, which fostered deeper learning, and this type of engagement promoted the development of learning communities. The social engagement in the groups also fostered a sense of belonging to their residence, although less so to the institution as a whole. Tinto (2012) argues that increased engagement with peers leads to a sense of belonging, which in turn decreases the risk of attrition. The peer mentoring program certainly provided this to some students. However, I cannot overemphasize the critical role that mentors play in fostering the conditions Tinto is calling for, specifically that of support and involvement.

Mentors played a key role in offering support and engagement. When mentors showed a genuine interest and care in their mentees and were open and relatable, they set the conditions Tinto is referring to. In the absence of the genuine interest, care and relatability, students failed to engage with the mentors, but in same-faculty pairings they were still able to engage with their fellow mentees. One of the reasons why Tinto's theory appealed to me, is that it aims to foster success of all students from all backgrounds and different levels of preparedness. Jansen (2004) argues that, with the right support, FGS can be successful and Tinto's theory offers a blueprint of what the right support should look like. The study found, however, that a diverse student population did not always benefit from participation in the program. This resulted from a lack of openness and sensitivity to diversity from some mentors, which hindered support to and involvement by a diverse range of students.

In light of the benefits reported by students, especially those who had received intense peer mentoring in their first year, peer mentoring does have the potential to create the academic and social environments that foster student success. However, this would require mentors to be more intentional in their peer mentoring efforts. The University is intentional in its efforts to promote improved success rates of all students. It is for this reason that the peer mentoring program was implemented. However, given the significant role each mentor should play in the outcomes of the program, and the fostering of the conditions of involvement and support Tinto is advocating for, it would be critical for mentors who are the implementers of the program to support the institution by being intentional mentors who are invested in the wellbeing of their mentees. To effect this, improved selection criteria need to be implemented and mentors need to be held accountable during their peer mentoring term. Continuous support and training for mentors should also be in place, to better equip them to play the role they are required to play. In light of the findings on mentor attributes and how this influences the program outcomes, I have formulated a proposed model for peer mentoring that would assist in the selection process of future peer mentoring programs.

6.5. PROPOSED MODEL FOR PEER MENTORING

The benefits of peer mentoring in HE have been highlighted by authors such as Leidenfrost et al. (2011) who argue that peer mentoring initiatives hold benefits for mentors, mentees and HEIs. It is for this reason that many HEIs are offering peer mentoring programs as part of their support initiatives to first-year students. This study did an evaluation of a peer mentoring program at SU, as this type of evaluation has not been done yet. While Leindenfrost et al. (2011) reported benefits to mentors, first-year mentees and HEIs, this study was limited to an evaluation of the benefits to the mentees, specifically in terms of their adjustment during the first year. Kram and Isabella (1985) also underscore the significance of peer mentoring programs and state that peer mentoring is a vital and significant support initiative. The findings of the study have, however, highlighted the significance of the right implementation of these programs, in order for it to play the vital role it can play in helping first-year students with their adjustment during the first year.

In a study done by Collings et al. (2016) participants reported a lack of contact by mentors as a reason for the phasing out of the peer mentoring weeks after the welcoming period. Similarly, this study found mentor attributes such as the level of commitment and their implementation of the program to have a significant effect on the outcomes of the program. These findings offer invaluable insights in the mentor attributes that foster good peer mentoring relationships and which consequently result in better program outcomes. Based on the findings, I am proposing a model for peer mentoring, which I have summarized in Table 6.6 below.

Table 6.6: Proposed model for peer mentoring

	High intensity peer mentoring	Low intensity peer mentoring
Nature of the relationship	Mentor considered a friend or advisor	Mentor considered a resource/informant or acquaintance
Nature of interaction	Mentees saw the mentor in group setting and had individual face-to-face interaction with them	Mentor only communicated with mentees in a group setting or via WhatsApp
Mentor attributes	Mentor shows a genuine interest and care for their mentees Relatable, open and empathetic Open to diverse students and their experiences	Peer mentoring perceived as obligation, no genuine interest and care for mentees Not relatable, difficult to connect with Closed-minded
Time invested in mentoring	Mentor put in extra effort	Mentor made minimal contact
Reasons for mentoring	Genuine interest in the well-being of first-year students	Personal gain
Be Well component	Fun, creative approach to sessions Be Well cards only used as guide	Formal and structured sessions Be Well cards overused

Table 6.6 presents the factors that fostered intense peer mentoring from which students benefitted. When the intensity of peer mentoring was high, the mentor took the role of an advisor/friend who put in extra effort to see mentees in a group setting or individually. Mentors showed a genuine interest in and care for their mentees, and they were relatable and open. They were intrinsically motivated to become mentors and took a fun, creative approach to the Be Well component of the program.

In contrast, students benefitted minimally, if at all, from less intense peer mentoring. Less intense peer mentoring occurred when mentors were less invested in their mentees, failed to show a genuine interest in them and made minimal contact with mentees either in a group setting or via WhatsApp messaging. These mentors were not perceived as relatable and open and appeared to be in the program for their personal gain instead of wanting to help their mentees. These findings raise questions about the selection of mentors, as well as the issue of accountability to ensure that mentees do in fact invest in peer mentoring. The proposed model aims to offer guidelines for mentor selection processes, and it hopes to assist HEIs like SU to select more committed, more invested mentors in future. It also offers some guidelines on how mentors should approach their mentees (e.g. with openness and through individual interactions) to facilitate positive mentoring relationships and intense peer engagement.

6.6. CONCLUSION

The study found no statistically significant differences in the overall adjustment of the experimental and control groups in the post-test. In spite of the lack of a statistically significant difference in the overall adjustment of the two groups, evidence of the benefits of the programme is found in the adjustment scores of the experimental group that increased in the post-test, while the adjustment for the control group declined. This trend does suggest that participating students might have had some benefit from participation in the program, but that it was not as significant as the program intended it to be. Results from the focus group discussions support this conclusion. However, not all students equally benefitted, as adjustment benefits were influenced by the intensity of the peer mentoring. While the Be Well component of the program is innovative, it does hold unintended, negative consequences for the program. Not all mentors facilitate this part of the program in a way that the program intends it to be done, and consequently it negatively affects the outcomes of the program when it is not implemented in the desired manner. The Be Well Peer Mentoring Program shows potential, but for it to reach its goals, some aspects need to be improved. This will be discussed in more detail in Chapter 7.

CHAPTER 7
CONCLUSIONS AND RECOMMENDATIONS

7.1. INTRODUCTION

In this final chapter of my thesis I draw conclusions from the results discussed in Chapter 6. The aim of the study was twofold: firstly, it sought to do a study on the outcomes of the Be Well Peer Mentoring Program that would be of practical value to the implementers of the program, and secondly it aimed at contributing to the gap in the literature on peer mentoring. I shall start with a summary of the motivation of the study. Thereafter I shall draw conclusions from the results and provide answers to the research questions that guided the study. This will be followed by recommendations for future implementation of the program, as well as perspectives on the contribution of the study, implications for future research and the limitations of the study. I shall conclude the chapter with a discussion of the significance of the study.

7.2. ADDRESSING THE KNOWLEDGE GAP

In my literature review I have, amongst other things, discussed the critical role that support initiatives are required to play in the current context of higher education (HE). In Chapter 1 under section 1.1, I discussed the changes in the HE sector that have intensified the significance of effective support initiatives. Globally, the HE sector has been marked by broadened access (Trow, 2000) and this has created access for many students such as first-generation students (FGS) who were not traditionally enrolled at higher education institutions (HEIs). Broadened access has been important for the new role HE is to play in society: HEIs are to provide opportunities for students of all backgrounds to gain high-level skills and to find better employment, and in doing so contribute to the socio-economic development of society (Ramdass, 2009; Castells, 2009). Broadened access has, however, presented HEIs with numerous challenges, one of which has been the dual challenge of access and success. Success rates of FGS in particular have been a major challenge as many FGS, due to various factors are entering less prepared for HE (Fox, et al., 2010; Harvey, et al., 2006). Lower success rates of underprepared FGS have put the issue of support to underprepared students high on the HE agenda (Cross & Carpenter; 2009; Teichler, 2001; Trow, 2000), as HEIs are required to offer support initiatives that would promote the success of all students.

Given the significance of success during the first year, as well as high first-year attrition rates, HEIs globally are attempting to enhance the first-year experience (FYE) through various programs (Barefoot, 2000; Hunter, 2006; Tinto, 2012). The intensity of the adjustment during the first year, as well as the significance thereof, has seen many HEIs offer support initiatives aimed at positively

contributing to the retention and adjustment of first-year students. Peer mentoring programs have grown in popularity and are increasingly being implemented as a means of improving retention (Collings, et al., 2014; Tremblay & Rodger, 2003; Ward, Thomas & Disch, 2012). Given that adjustment is a major factor influencing student retention in the first year (Tinto, 1993), peer mentoring programs often assist students with adjustment during the first year (Collings et al., 2014; Grant-Vallone & Eshner, 2000; Treston, 1999). In spite of the popularity of these programs and the positive anecdotal reports on the outcomes thereof, research in the field is still limited (Knowles & Parsons, 2009). It is against this background that I wanted to do a study that would contribute to the gap in the current literature. I also wanted to do a study that would be of practical significance for peer mentoring programs, as the effective practical implementation of such programs is key to student success.

In the South African context, the new role that HEIs are required to play has added significance. Current HE in SA is required to play a key role in the transformation and development of a post-apartheid society to reduce the inequalities left by the oppressive colonial and apartheid systems. Broadened participation and accompanying success rates of previously underserved African and Coloured students are key to this agenda. While progress has been made in terms of broadened access to these underserved groups, access has not been accompanied by success, and lower throughput rates and high attrition remain a concern (CHE, 2013). Most African and Coloured students gaining access to HE are FGS and FGS from low income backgrounds. Being FGS, their adjustment challenges are heightened by social factors such as their educational backgrounds, family backgrounds, financial circumstances and even language barriers (Jehangir, 2010). It is for this reason that many HEIs in SA also offer peer mentoring programs to improve retention and adjustment during the first year. Another major advantage of peer mentoring programs is their cost-effectiveness, which in part contributes to the popularity of these programs.

The scarcity of resources, in particular with regards to student support services, was recently highlighted by the Minister of Higher Education, Naledi Pandor, who stated that the government has no additional funding for student counselling and social work and that nationally the Department of Higher Education and Training (DHET) will look into how peer mentoring can offer the needed support to students. This statement underscores the increasingly important role that peer mentoring is likely to play in South Africa in the years to come, in part due to the limited resources available for student support. Bowman and Bowman (1990) and Schreiber (1997) alluded to the cost-effectiveness of peer mentoring programs, as one of the major benefits to HEIs.

While the success rates of African and Coloured students at Stellenbosch University (SU) are higher than the national average, their success rates are still lower than those of their White counterparts. Poor academic performance in the first year often results in longer time to graduation for African and Coloured students, resulting in heavier financial burdens for them and their families. The University's commitment to bridging this gap is articulated in the institutional plan for 2012-2016, which states that "it is extremely important that the gap between success levels of the racial groups be bridged" (SU, 2012:7). For this purpose, the institution offers a variety of support programs focussed specifically on first-year students.

The Be Well Peer Mentoring Program is a major initiative offered to first-year students. A primary aim of the program is to optimise the adjustment of participating first-year students by focussing on holistic wellness. Wellness is a central part of the program which brings a unique element to peer mentoring. While the program has been operational for five years, no systematic scientific research has been done on the program outcomes. Against the background of scarce resources, offering the program alone is not enough; the program needs to demonstrate that it is meeting its goals and, if not, changes need to be made to do so. Tinto (2012) underscores the importance of gaining feedback on the outcomes of programs facilitating student success. Strydom and Foxcroft (2017) also highlighted the significance of implementing effective programs to enhance student success and called for more evidence-based practices to ensure program outcomes are met. This was concurred by Henn, Hen-Boisen and Posthumus (2017) who argued that in SA in particular, there has been a shift towards evidence-based decision making and practices, to increase student success. These authors too called for more evidence-based support initiatives. Against this background, the study investigated the adjustment outcomes of the Be Well Peer Mentoring Program, hence addressing the gap in the current literature.

7.3. LOGIC MODEL OF THE BE WELL PEER MENTORING PROGRAM

A logic model is a tool used by program evaluators which describes the linkages between the program resources, inputs, activities and outcomes. Inputs refer to the human, financial and other resources required to support a program. Activities refer to steps needed to produce the outcomes of the program, while outputs are the products or services directly delivered to those for whom the program is intended. Outcomes are the benefits or changes resulting from the program activities and outputs (McLaughlin & Jordan, 1999). While the study only investigated one of the outcomes of the Be Well Peer Mentoring Program, it is important that this outcome be interpreted within the program as a whole. For purposes of interpretation I therefore drew up a logic model. Figure 7.1 presents the logic model I developed for the Be Well Peer Mentoring Program.

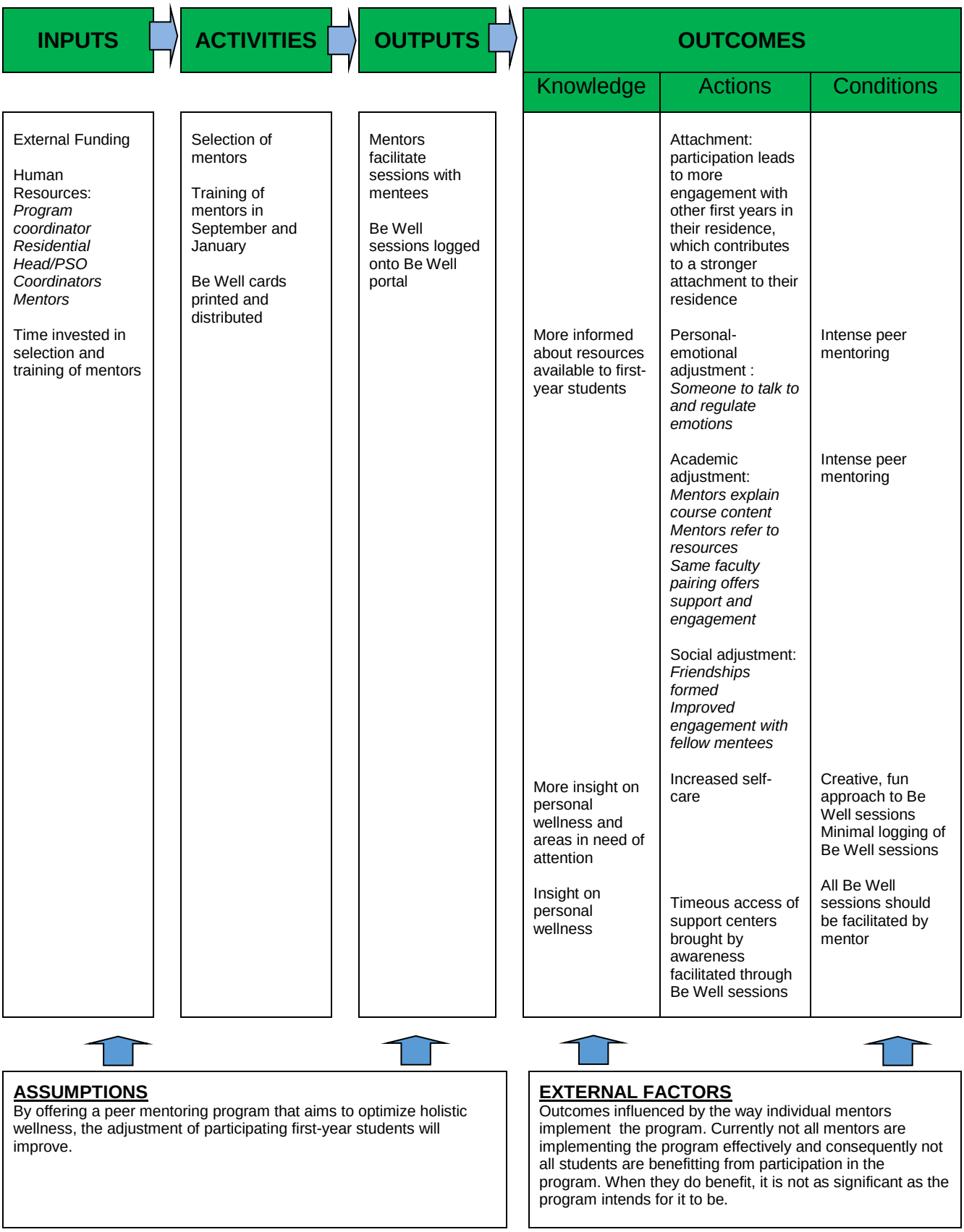


Figure 7.1: Logic model of the Be Well Peer Mentoring Program

The logic model summarizes the inputs, activities, outputs and outcomes (as per the findings of the study) of the program. In addition to the external funding sponsored for the program, the inputs of the program are primarily the human resources and time invested from staff and mentors. These

financial resources, human resources and time are applied to the selection and training of mentors and to generate materials such as the Be Well wellness cards that are used to train and guide mentors during their peer mentoring experiences. After the training, mentors are required to facilitate the Be Well sessions to their first-year mentees and to log these sessions onto the Be Well portal upon completion (of the sessions). Through these activities the program aims to reach its intended outcomes. The logic model distinguishes the outcomes in terms of knowledge and action. With regard to knowledge, this study found that some participants were more informed about resources available to first-year students and they have gained more insight in their personal wellness and areas in need of attention. The outcomes in terms of actions are formulated around the adjustment outcomes, as the assumption of the peer mentoring program is that, by optimizing holistic wellness, the adjustment of participating first-year students will improve, and consequently the benefits in terms of adjustment were investigated by the study.

As can be seen from the logic model, the program did hold some benefit to the adjustment of participating students, in particular with regard to their personal-emotional, academic and social adjustment. Personal-emotional adjustment is facilitated through having a mentor that is a "go to person" with whom first-year students can share their experiences and challenges. This helps in containing emotions such as anxiety and consequently contributed to their personal-emotional adjustment. The study found that the program contributed to academic adjustment through resources provided by the mentor, explanation of course content by the mentor and increased academic engagement amongst mentees who were paired in same-faculty mentor groups. These benefits were greater when the mentor studied a similar course as the mentee and when mentees were from the same faculty. The Be Well component of the program in particular contributed by increasing awareness of wellness, which fostered better self-care and consequently improved adjustment. It further enabled students to access the relevant support centers on campus timeously when these wellness domains were facilitated by their mentors. The program offers indirect benefit in terms of attachment by contributing to a sense of attachment to their university residence, which becomes part of their attachment to the institution.

Some of these benefits, however, occur on the condition that intense peer mentoring takes place. It was also found that benefits in terms of personal-emotional and academic adjustment were greater in the presence of intense peer mentoring. Benefits in terms of social adjustment were better when same-faculty pairings were applied in mentor groups. This is, however, not indicated as a condition in the logic model, as same-faculty pairings were not a condition for social-adjustment benefits but rather an enhancer thereof. Benefits in terms of wellness were also dependent on the mentor facilitating all the wellness sessions and approaching these sessions in a fun and creative way. A primary feature of

a logic model is to identify key contextual factors, beyond the program's control, that influence the success of the program (McLaughlin & Jordan, 1999). In this logic model I identified the implementation of the program by individual mentors as an external risk, as the adjustment outcomes of the program are influenced by the intensity of peer mentoring provided by the mentors. This is, however, not completely out of the control of the program administrators, but does call for better selection of mentors and closer monitoring of how the program is being offered to participating first-year students.

7.4. FINDINGS OF THE STUDY

The study specifically investigated one of the intended outcomes of the Be Well Peer Mentoring Program - the adjustment of participating first-year students. As mentioned in section 1.1.4 of Chapter 1, a primary goal of the program is to facilitate the adjustment of participating first-year students through the optimization of their holistic wellness (Botha & Cilliers, 2012). The nature of the research questions guided the entire research process and because they included questions that required both explanation and understanding, a mixed-method design was adopted for the study. An explanatory sequential mixed-method design was used, collecting quantitative data from a quasi-experiment which was followed by the collection of qualitative data from focus group discussions.

According to Creswell (2015), mixed-method research (MMR) is characterized by the gathering of both quantitative and qualitative data, the integration of the two, and making interpretations based on the combined strengths of both data strands to better answer the central research question. The collection of both data strands gave me a holistic perspective of the contribution the program has made in terms of the adjustment of participating students, and therefore enabled me to best answer the central research question. Creswell (2015) further states that, in the explanatory sequential design, inferences are drawn on how the qualitative results help to explain the quantitative results. I will attempt to do so in drawing conclusions on the research findings. The central research question was: *What difference, if any, has the peer mentoring program at Stellenbosch University made in terms of the adjustment of first time entering first-year students?* To answer this question, three sub-questions guided the research process. I shall firstly discuss the sub-questions before drawing conclusions on the central research question.

7.4.1. Sub-question 1: Have participants in a peer mentoring program at Stellenbosch University experienced better adjustment during their first year than non-participants?

To answer this sub-question, the pre-test post-test non-equivalent control group design, a quasi-experiment, was used. For this design, the Student Adaptation to College Questionnaire (SACQ) was

administered to measure the adjustment, both pre- and post-intervention, of the control and experimental group. The following hypothesis guided this quasi-experiment:

The null hypothesis: There is no difference in the adjustment of the control group and experimental group in the post-test.

The alternative hypothesis: There is a statistically significant difference in adjustment between the control group and experimental group.

After administering the post-test version of the SACQ, the overall adjustment scores from the pre-test data were compared with the overall adjustment scores from the post-test data. Analyses of variance were calculated to determine whether there was any statistically significant difference in the overall adjustment of the two groups. No statistically significant difference in post-test adjustment scores was found for the two groups ($p > 0.05$). Similarly, Cohen D effect sizes showed a negligible difference in the adjustment of the control group and the experimental group in the post-test adjustment (0.12 negligible). The null hypothesis was therefore supported.

While there was no statistically significant difference found in the adjustment of the groups in the post-test, the control group saw a decline in adjustment in the post-test while the adjustment of the experimental group improved. This suggested that there could have been some benefit for students who participated in the program, but that it was not enough to be statistically significant. The focus group discussions yielded valuable insights on the lack of a statistically significant difference found between the two groups in the post-test.

During the focus group discussions it emerged that participating students differed in how they benefitted from the program, and the extent to which they benefitted was influenced by the intensity of the peer mentoring they had received. While some students reported that participation in the peer mentoring program helped them with their adjustment during the first year, other participants did not benefit to the same extent. Some weaknesses in the implementation of the program were identified that contributed, in many ways, to participating students not getting the intended support from the program. The role that the mentor played in contributing to the intensity of the peer mentoring emerged as a central theme in the focus group discussion, raising concerns about the implementation of the program by some individual mentors.

These results from the focus group discussions offered some explanation of the results of the quasi-experiment. The students did experience some benefit, hence the improvement on the adjustment of the experimental group noted in the post-test. However, these benefits were not significant to all students, but only to some, and consequently this was not reflected as a statistically significant difference between the two groups in the post-test. In answering this sub-question I would therefore

conclude that the program had some benefit for participating first-year students, but participants in the peer mentoring program at Stellenbosch University did not necessarily experience significantly better adjustment during their first year than non-participants.

7.4.2. Sub-question 2: How, if at all, has participation in a peer mentoring program contributed to adjustment of first-year students at Stellenbosch University?

This sub-question required a deeper understanding of the kinds of benefits that ensued from participation in the peer mentoring program, and consequently focus group discussions were facilitated to explore how participating first-year students benefitted from the program. As concluded when answering the first sub-question (section 7.4.1), not all participants benefitted equally. This sub-question sought to understand how exactly students benefited when they did benefit from participation.

Table 7.1 summarises how participants benefitted both in terms of their overall adjustment and in terms of the various adjustment domains, namely attachment, personal-emotional adjustment, academic adjustment and social adjustment. As can be seen from Table 7.1, there were overall adjustment benefits when the mentor served as guide to the mentee or when they played an informative role. Attachment to the institution was facilitated in particular through interactions with other mentees in the mentor group: this fostered a sense of belonging to their residences and in the event of same-faculty pairings, contributed to increased engagement on campus - which in turn fostered a stronger attachment to the institution. The program contributed to personal-emotional adjustment when the mentor created a safe space for mentees to talk when they felt overwhelmed. When the mentor explained course content, provided resources or referred mentees to available support centres on campus, this contributed to academic adjustment. Same-faculty pairings also contributed to academic adjustment, as they fostered more academic involvement amongst mentees. Participating first-year students benefited in terms of their social adjustment through the friendships and engagement in their mentor groups, and this was more common with same-faculty pairings.

Table 7.1: Summary of how the program contributed to the adjustment of participating students

Adjustment domain	How the peer mentoring program contributed to adjustment
Overall adjustment	Mentors served as a guide and friend, whom they could approach as needed, and having this 'go to person', helped them with adjustment during their first year. Mentors served as a resource that could relay important information, direct them to support centres on campus or provide them with resources such as academic material that would assist them.
Attachment	Same-faculty paired mentees formed close bonds with their mentee peers. Through these bonds their engagement with their mentee peers was extended beyond the scope of their mentor group interactions to interactions with other peers in their classrooms and faculty, fostering a sense of attachment to the institution. Bonding with other mentees, also fostered a sense of belonging to the residences they lived in, and indirectly contributed to forming some form of attachment to University.
Personal-emotional adjustment	When the mentor created a safe space, the mentor played the significant role of a "go to person" the mentee could talk to when overwhelmed. Talking to the mentor, help in containing emotions and brought about new perspectives and the mentee could also initiate actions that would solve the problem that was overwhelming him/her. Utilising the mentor as a 'go to person" therefore contributed to personal-emotional adjustment.
Academic adjustment	Academically, students benefited from mentors explaining course content when they were enrolled for similar courses. Mentors provided resources and advice, and this in turn helped mentees to adjust academically. Mentors could refer mentees to relevant academic support structures to, for example, change their courses, which helped with academic adjustment. Same-faculty pairings facilitated friendships amongst mentees in the same faculty. These friendships in turn created opportunity for more involvement in academic activities amongst themselves. For example they could study together and consequently learn from each other and support each other academically.
Social adjustment	Participating first-year students benefited in terms of their social adjustment through the friendships and engagement in their mentor groups. Same-faculty pairings afforded mentees the opportunity to make friends with others from their faculty and they could engage with them on campus, for example at lectures, which contributed to their social adjustment.

As already alluded to in 7.4.1, not all students equally experienced the benefits summarized in Table 7.1. How students benefitted were influenced by two primary factors: 1) the role their mentor played and the mentor attributes and 2) the mentor group itself. When the mentor played an intentional mentoring role, this led to more intense mentoring and consequently more benefits. Additionally, when the mentor studied a similar degree as the first-year mentees, they were able to provide

assistance with course content that could not happen when they pursued different fields of study. Same-faculty pairings in mentor groups also contributed to the adjustment of participating students. When same-faculty pairings were done when assigning mentees to mentor groups, participating first-year students were still able to benefit, even when peer mentoring from the mentor was less intense.

7.4.3. Sub-question 3: To what extent has the wellness focus of a peer mentoring program contributed to the adjustment of first- year students at Stellenbosch University?

As discussed in Chapter 3 under section 3.4.1.1, the Be Well Peer Mentoring Program is focused on facilitating wellness, as it aims to foster adjustment through the optimization of holistic wellness. In this sense it differs from most peer mentoring programs that focus on adjustment, and consequently foster wellness. The wellness component is quite central to the program's training and implementation. From the focus group discussions it emerged that the approach that mentors took to the wellness component played a critical role in how students benefited from this part of the program. Most students experienced the wellness part of the program as too structured and formal, and when this occurred, the outcomes were less positive. When mentors had a more creative, interactive approach (and only used the Be Well wellness cards as a guide) mentees enjoyed this part of the program and reported benefitting from it. Table 7.2 summarizes how participating students benefitted across the different wellness domains.

As illustrated in Table 7.2 the six wellness sessions, when facilitated in a creative and fun way, made participating students reflect on their own wellness and those aspects that needed some attention, which enabled them to implement changes and consequently improve their adjustment. This awareness of personal wellness served as the early warning system Tinto (2012) refers to. Tinto (2012) argues that peer mentors have the potential to act as an early warning system providing feedback to the institution on students who might be facing difficulties or who are at risk. This study did not find mentors to play this role, but the Be Well component of the program served as an early warning system on their own wellness to mentees, who could timeously take steps to improve their wellness or seek professional assistance from the relevant support structures on campus before their difficulties intensified.

The increased awareness of personal wellness was achieved for the respective wellness domains. Each Be Well session therefore created an awareness of the personal wellness in that specific wellness domain. For example, the session on emotional wellness created an awareness of the mentee's personal emotional wellness and the mentee could take action or even consult professional help to improve this. The insights gathered from the Be Well sessions and the consequent actions taken to

improve wellness, contributed to overall adjustment and adjustment of all sub-scales with the exception of attachment. Attachment refers more to a personal connection and commitment to the institution, which falls out of scope of what the Be Well sessions intend to achieve.

Table 7.2: Summary of how the wellness component of the Be Well Peer Mentoring Program contributed to the adjustment of participating first-year students

Adjustment domain	Contribution of the wellness component to the adjustment of first-year students
Overall adjustment	The Be Well sessions facilitated an awareness of the importance of holistic wellness and the significance of being well in all the respective wellness domains. This contributed to mentees being more sensitive to their overall wellness and taking more actions to improve their wellness, which contributed to their overall adjustment. Reflection on the Be Well wellness sessions led to deeper insights into the personal wellness of participants, and consequently actions could be taken to improve those areas of their wellness that needed improvement, which positively contributed to their adjustment.
Attachment	No clear contribution, as the wellness component was primarily informational in nature and not embedded in the institutional context.
Personal-emotional adjustment	The Be Well session on emotional wellness led to reflection on their personal emotional wellness and consequently actions could be taken to make changes and access support to improve their emotional wellness, leading to better personal-emotional adjustment. The session on emotional wellness also introduced them, in some instances, to the support services, such as the Centre for Student Counselling and Development, on campus. Mentees knew where to access emotional support when needed. The emotional wellness session also enabled mentees to reflect on their emotional wellness, before it escalated and developed into more serious emotional challenges, and in this regard it helped them with their personal-emotional adjustment.
Academic adjustment	The Be Well session on academic wellness led to reflection on their personal academic wellness and consequently actions could be taken to make changes and access support to improve their academic adjustment. For example, students could access assistance with study methods and time management timeously, if they reflected on their academic wellness and identified areas in need of assistance.
Social adjustment	The Be Well session on social wellness led to reflection on the social wellness of participating students and consequently actions could be taken to make changes and access support to improve their social adjustment. For example, if students gained insight that they were lonely or did not socially engage enough, they were able to gain this insight and also to take steps to correct this.

An interesting finding of the study has been the unintended outcomes of this part of the program. The program requires all mentors to facilitate six group sessions on the different wellness domains with their mentees during the course of the year, and these sessions need to be logged in. As this part of the program is more closely monitored through the logging system, mentors were often focused on this part of the program rather than spending time with their first-year mentees on an individual level

and getting to know them. The requirement to log the group sessions also resulted in a stronger focus on group interactions rather than on more personal contact on a one-on-one basis, which adversely affected the nature of the mentor-mentee relationship and consequently the intensity of the peer mentoring.

The logging of sessions also contributed to the disconnectedness some mentees experienced towards their mentors. The mentees seemed to have a need to form a relationship with their mentors and a focus on logging of Be Well sessions gave the impression of an impersonal, mandatory interaction, rather than genuine interest and care – especially in the absence of a bond between mentor and mentee. Instead of engaging with mentees and trying to form a relationship with them, mentors often focused on doing the Be Well sessions in a group setting, partly because they were being monitored via the logging system. Some mentees experienced their mentors to only have mentor sessions with them because s/he needed to log these sessions, rather than taking a personal interest in them. This did not foster the conditions of involvement and support that were needed, but instead could have contributed to the disconnection some mentees felt towards their mentors. This partly explains the lack of benefits that this part of the program had in terms of adjustment.

7.4.4. The main research question

The main research question was as follows:

What difference, if any, has the peer mentoring program at Stellenbosch University made in terms of the adjustment of first time entering first-year students?

The answers to the three sub-questions (7.4.1, 7.4.2 and 7.4.3) helped me to answer this main research question. While some students benefitted in terms of their overall adjustment and the various adjustment domains, the program did not reach its primary outcome of significantly contributing to the overall adjustment of participating first-year students. No statistically significant difference in post-test adjustment scores was found between the control and experimental groups ($p > 0.05$). From this it can be concluded that the program did not make the intended difference to the adjustment of participating first-year students.

While there was no statistically significant difference found in the adjustment of the groups in the post-test, the control group saw a decline in adjustment from the pre-test to the post-test, while the adjustment of the experimental group improved. From this I concluded that the program held some benefits to participating students. This conclusion was supported by the focus group discussions that found that students did experience benefits from the program, but that there were vast differences in the extent to which participating students benefitted. The differences in how students benefited were primarily influenced by the quality of peer mentoring and the intensity of the mentoring relationship.

Even when students did not benefit in terms of their overall adjustment, there were some benefits in terms of the four adjustment sub-scales of the program.

The response below from respondent 5, as cited in Chapter 6 under section 6.3.1, encapsulates the ideal role of a mentor that engaged in intense mentoring, and how participating students benefitted in terms of their adjustment when they received intense peer mentoring:

Well, I felt that the mentor program was really something that was helpful to me personally because coming from high school into a university it was a new environment and everything was a bit challenging. But having a mentor to guide you and to show you how to do things and what not to do and what to do was quite helpful [R5].

The above quote captures the potential power of peer mentoring and the benefits that intense mentoring held for first-year students. Respondent 5 expressed how the guidance of a mentor helped her to adjust during her first year. I believe that the program has the potential to contribute positively to the adjustment of many future first-year students, as it did for respondent 5, but this requires better implementation of the program by the individual mentors. The following recommendations, which I have based on these findings, will hopefully assist the Centre for Student Communities (CSC) to make some changes that could contribute to better program implementation and outcomes in the future.

7.4.5. Synopsis of findings

- There was no statistically significant difference found in the post-test adjustment for the two groups.
- The program has potential and students do experience some benefit from participation. Not all students, however, benefitted equally.
- Ineffective implementation of the program, by mentors, negatively influences program outcomes.
- The intensity of peer mentoring received by first-year students had an influence on program outcomes.
- The following factors contributed to the intensity of peer mentoring received: how individual mentors implemented the program, mentor attributes, the nature of the mentor-mentee relationship, the nature of interactions between mentor and mentee, time invested in mentoring and the reasons for mentoring.
- Participation in the program contributed to the adjustment across the various adjustment domains (academic, social, personal-emotional, attachment), but not all students benefitted equally in this regard.

- When the BeWell wellness component of the program was implemented in a fun and creative way, students benefitted from it.

7.5. RECOMMENDATIONS FOR FUTURE IMPLEMENTATION OF THE BE WELL PEER MENTORING PROGRAM

In light of the above-mentioned conclusions and the results discussed in Chapter 6, I have arrived at the following recommendations for the CSC regarding the implementation of the Be Well Peer Mentoring Program. These recommendations pertain to the selection and training of mentors, mentor training, mentor and mentee pairings and the Be Well component of the program.

7.5.1. Selection of mentors

The CSC has clear written guidelines in place for the selection of head mentors and mentors (CSC, 2017b; 2017c; 2017d). These documents are circulated to all residential heads and PSO coordinators. However, they primarily offer guidelines on the process of selection and do not specify the mentor attributes to look for when mentors are selected. Given the significance of the mentors in the successful implementation of the program, it is important that the right mentors are selected. Mentors who are genuinely altruistic in their motives to mentor and who show genuine care for and interest in all their mentees, irrespective of differences such as personality, class, generational status and race, are required. This is especially important with regard to the goal of bridging the gap in success rates between the racial groups at the institution. All students need to get the necessary support from their mentors.

The guidelines that the CSC currently offers are just that – a process guide. It is however important for the individual residences and PSOs to pay closer attention to the selection criteria to ensure that committed, truly invested mentors are selected. As mentioned before, there are no guidelines regarding the characteristics of an 'ideal' mentor. It is recommended that the mentor attributes identified in this study, as given under section 6.3.2.1.1 of Chapter 6, be added to the current guidelines and for CSC to get the buy-in from the various residences and PSOs to use these as part of their selection criteria.

7.5.2. Monitoring of mentors

In section 3.4.1.4 of Chapter 3, I discussed the individuals responsible for the implementation of the program and those responsible for overseeing program implementation. I have highlighted the significant role that mentors play, and the results of the study have highlighted the challenges with regard to how mentors implement the program. The program coordinator has limited, if any, contact

with the mentors outside of the training scheduled twice a year. Given the limited contact the program coordinator has with the mentors, who are the ones interacting with the students, there is a strong reliance on the head mentor to ensure that mentors implement the program successfully. Head mentors are, however, students themselves and may not always be fully equipped to do so. They themselves, being senior students, have heavy academic workloads that might hinder them from being available as and when required by mentors.

The residential heads/PSO coordinators are also meant to oversee the implementation of the program in their respective environments, as this is stipulated in their annual work agreements. However, the work agreement does not specify the nature of involvement, leaving it open to individual interpretations, and this poses a risk to effective monitoring of the program. More involvement from the residential heads/PSO coordinators is recommended, as well as continuous critical reflection from them on how the program is being implemented in their respective environments. It would be beneficial for the program coordinator to get regular feedback from the residential head/PSO coordinators on the implementation of the program.

7.5.3. Mentor training

Gregory (2009) underscored the importance of training in assuring that programs are aligned to participants' needs. Currently, a major emphasis of the peer mentoring program is on the wellness domains and the administration thereof and consequently much of the training is centred on the Be Well component of the program. While this is important, there are other skills mentors need to acquire to ensure that they do a good job of their peer mentoring, such as training in group dynamics, how to foster group cohesion, developing empathy, sensitivity to diversity and so forth. Training aimed at sensitizing mentors on the different adjustment challenges of first-year students is important (Gregory, 2009), especially in light of the finding that some mentors were not sensitive to the diversity amongst their mentees. It is therefore recommended that the scope of training be expanded to include these type of topics that aim to foster better peer mentoring relationships, as summarized in the proposed model for peer mentoring in Chapter 6, section 6.5

7.5.4. Same-faculty pairings

Same-faculty pairing is not a condition for pairing mentors and mentees in the program and are therefore not applied throughout the program, as residences and PSOs may differ on whether and how pairings are done. However, it is recommended that the criterion of same-faculty pairings be adopted as a standard practice (as far as practically possible), at least for mentees in their mentor groups and where possible for mentor to mentee pairings, as this practice holds significant academic, social and institutional adjustment (attachment) benefits for first-year students. It must be noted that, when

selecting mentors, same-faculty pairing of mentors should be a secondary consideration to the mentor attributes identified as fostering good peer mentoring relationships, as discussed under section 6.5 of Chapter 6.

7.5.5. Implementation of the Be Well component of the program

Given the challenges expressed with regard to the logging of the Be Well sessions, it is recommended that this administrative part of the program be revisited. More mentors need to approach the Be Well sessions in a fun and creative way to ensure that more first-year students benefit from them. Continuous supervision of mentors could be beneficial in this regard, not only from the head mentor, but also from the residential heads/PSO coordinators or from the Be Well program coordinator directly. CSC should also consider having all the Be Well sessions earlier in the year, instead of over the course of the year, to ensure awareness of holistic wellness is fostered early in the year. This would allow for early interventions aimed at addressing any wellness challenges identified.

7.6. CONTRIBUTIONS OF THE STUDY

At a practical level, the purpose of the study was to do a comprehensive, practically relevant investigation on the outcomes of the peer mentoring program that would be of benefit to the implementers as well as future participants of the program. The study, I believe, has achieved this goal. Not only did it report on the trends of adjustment outcomes, but it also gave a deeper understanding of how the implementation of the program poses a barrier to it reaching the intended outcomes. It also highlighted challenges in terms of how diverse students are experiencing the program, and what training is required to ensure the diverse students gaining access to the institution optimally benefit from participation in the program. The results also yielded recommendations that would contribute to better program implementation and consequently improve program outcomes in the future.

At a theoretical level, the study addressed the gap in the literature on scientific inquiry on peer mentoring programs. While some of the findings are context specific, the results call for HEIs to be more reflective on the implementation and outcomes of their peer mentoring programs. From the perspective of pragmatism, the transferability of research findings lies in how valuable the results are in terms of the practical use of the acquired knowledge in different circumstances (Fishman, 1991; Morgan, 2007). The study underscores the importance of offering intense peer mentoring to first-year students, as this was found to be significant in fostering adjustment of participating students. The proposed model for peer mentoring in section 6.5 of Chapter 6 summarized the mentor attributes that this study found to contribute to positive, intense peer mentoring experiences. The following mentor attributes were identified: a genuine interest and care for mentees, being open, relatable and

empathetic as well as being open to diverse students and their experiences. The latter is especially significant within the current context of HE where the student population has diversified and where HEIs are required to offer effective support initiatives to all students. Other factors that were found to influence the intensity of the peer mentoring were: reasons for mentoring, time invested in mentoring, the nature of interaction between mentor and mentee and the nature of the mentoring relationship. Mentor attributes were critical to the nature of peer mentoring relationships formed, and in this regard the proposed mentor attributes could serve as guide for HEIs in their selection criteria for mentors.

The study also offers some guidance for peer mentoring itself. For example, the nature of interaction between mentor and mentee was found to contribute to the intensity of the peer mentoring. Individual face-to-face contact was found to be the most desirable for forming a strong connection between mentor and mentee. Group interactions were not as conducive to this, as many first-year students who are truly struggling with adjustment are unlikely to share in a group context, as highlighted by participants in the study. Group interactions are, however, significant in fostering engagement amongst mentees and in doing so the mentee peers also become a source of support. A combination of individual contact and group session are therefore desirable for creating the conditions that will foster intense peer mentoring. These practical guidelines could be of benefit to many other HEIs offering peer mentoring programs.

7.7. LIMITATIONS OF THE STUDY

Due to ethical reasons, discussed in section 5.9 of Chapter 5, I was unable to do random assignment and had to opt for a quasi-experiment as data collection method for the first phase of the mixed-method design. Anonymity of participants made it impossible to do random assignment and consequently I was unable to perform correlational analysis. The lack of correlational analysis is one of the major limitations of the study.

The study focussed on the perspective of the first-year student. In the focus group discussions, gaps pertaining to how mentors implemented the program were identified. These gaps were expressed from the perspective of the first-year students and did not bring in the perspective of the mentors. The study is therefore limited in the sense that it only focussed on the experience of the first-year students, from their perspective, and it did not include the perspective of the mentors, for example what the factors were that contributed to the intensity (or lack thereof) of the peer mentoring.

A further limitation is the small representation of PSO students in the focus group discussions. As alluded to in section 6.1.3.6 of Chapter 6, residential students at the institution are generally much more involved on campus compared to PSO students, which likely contributed to the higher

participation rate of residential students in the focus group discussion. However, it would have been preferable to have more PSO students in the focus group discussions to gain more in-depth understanding of their experiences, as they form by far the largest proportion of undergraduate students at SU.

7.8. IMPLICATIONS FOR FUTURE RESEARCH

At an institutional level, this study focussed solely on the perspectives of first-year students; future research could focus on the perspectives of the mentors, to gain an understanding of how they implement the program, and why they do so. Challenges that mentors themselves face with regard to the successful implementation of the program should also be explored.

In addition, the study only focussed on one of the intended outcomes - adjustment. Future research could focus on other intended outcomes, for example, wellness outcomes.

In the broader context of HE, this study substantiates Tinto's argument (Tinto, 2012) that HEIs should, as part of their actions to foster student success, systematically study the outcomes of their support initiatives. The results underscore the need for more research on the outcomes of support initiatives such as peer mentoring programs to ensure that programs indeed contribute to student success as they are intended to. It therefore offers support to the calls made by Strydom and Foxcroft (2017) and by Henn, Hen-Boisen and Posthumus (2017) for more evidence-based support initiatives to be offered at HEIs, in their efforts to improve student success.

7.9. SIGNIFICANCE OF THE RESEARCH

Throughout this thesis I have highlighted the significance of interventions to foster student success in the current context of HEIs, especially for first-year students. I agree with Tinto (2012) when he states that HEIs should do everything in their power to facilitate the success of all students gaining access, irrespective of their entering characteristics such as their level of preparedness. While support initiatives are high on the agenda for HEIs, having these initiatives without knowledge on the outcomes thereof might not be sufficient. This study investigated the outcomes of one of the primary support programs offered to first-year students at SU, and has gathered valuable knowledge that could assist the institution to better implement the program and in turn improve the program outcomes.

Globally, peer mentoring programs are pervasive support initiatives offered to first-year students, and while there are much anecdotal reports on the outcomes thereof, research in the field is still limited (Knowles & Parsons, 2009). The study underscores the need for more scientific inquiry into the outcomes of peer mentoring programs and highlights the importance of the appropriate implementation of such programs. In doing so, other HEIs can take from the study the importance of critical reflection on the implementation of their peer mentoring programs and the continuous

monitoring of implementation as a way of ensuring their programs reach the intended outcomes. The mixed-method design produced valuable insights both on the outcomes as well as the process of peer mentoring, and this could be useful for future considerations of peer mentoring programs at other HEIs.

7.10. CONCLUDING REMARKS

As a student affairs practitioner, working both in student counselling and as a residential head, I am passionate about supporting all our students gaining access to HEIs to be successful. Living in a developing country with high levels of unemployment and poverty, I am excited about the socio-economic prospects that massification holds. I am equally committed to supporting all students along this often challenging journey of student success. I am therefore grateful for the opportunity that I was afforded of doing this evaluation study, as this has been yet another way of making a personal contribution to student success.

I am a big supporter of peer mentoring programs and of the Be Well Peer Mentoring Program in particular. However, this study has brought about an appreciation for the complexities inherent in the implementation of these programs. I hope that the results from this study will help SU to make the necessary improvements and I am positive that doing so will be of benefit to many future first-year students. Similarly, I trust that the results will be of practical use to other HEIs offering peer mentoring programs.

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ADDENDUM 1: ETHICAL APPROVAL OF RESEARCH

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Jou kennisvennoot • your knowledge partner

Approval Notice

Stipulated documents/requirements

16-Nov-2016

Mcconney, Angelique AR

Ethics Reference #: SU-HSD-003553

Title: Evaluating the role of a peer mentoring program in the adjustment of first-year university students

Dear Mrs. Angelique Mcconney,

Your Stipulated documents/requirements received on 07-Nov-2016, was reviewed and **accepted.**

Please note the following information about your approved research proposal:

Proposal Approval Period: 27-Oct-2016- 26-Oct-2017

Please take note of the general Investigator Responsibilities attached to this letter.

If the research deviates significantly from the undertaking that was made in the original application for research ethics clearance to the REC and/or alters the risk/benefit profile of the study, the researcher must undertake to notify the REC of these changes.

Please remember to use your **proposal number (SU-HSD-003553)** on any documents or correspondence with the REC concerning your research proposal.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

We wish you the best as you conduct your research.

If you have any questions or need further help, please contact the REC office at 218089183.

Sincerely,

Clarissa Graham
REC Coordinator
Research Ethics Committee: Human Research (Humanities)

National Health Research Ethics Committee (NHREC) registration number: REC-050411-032.

The Research Ethics Committee: Humanities complies with the SA National Health Act No.61 2003 as it pertains to health research. In addition, this committee abides by the ethical norms and principles for research established by the Declaration of Helsinki (2013) and the Department of Health Guidelines for Ethical Research: Principles Structures and Processes (2nd Ed.) 2015. Annually a number of projects may be selected randomly for an external audit.

ADDENDUM 2: RENEWAL OF ETHICAL APPROVAL

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Approved with Stipulations
New Application

07-Nov-2016
Mcconney, Angelique AR

Proposal #: SU-HSD-003553
Title: Evaluating the role of a peer mentoring program in the adjustment of first-year university students

Dear Mrs. Angelique Mcconney,

Your **New Application** received on **04-Oct-2016**, was reviewed by the Research Ethics Committee: Human Research (Humanities) via Committee Review procedures on **27-Oct-2016**.

Please note the following information about your approved research proposal:

Proposal Approval Period: **27-Oct-2016 -26-Oct-2017**

Present Committee Members:
Van Deventer, Karel KJ
Clarke, Catherine CM
Fouche, Magdalena MG
De Villiers, Mare MRH
Theron, Carl CC
Graham, Clarissa CJ
Lesch, Anthea AM
Toi, Jerall J
Williams, Aden A
Horn, Lynette LM
De Klerk, Jeremias JJ
Hall, Susan SLC

The following stipulations are relevant to the approval of your project and must be adhered to:
The researcher may proceed with the envisaged research provided that the following stipulations, relevant to the approval of your project are adhered to or addressed. Some of these stipulations may require your response. Where a response is required, you must respond to the REC within six (6) months of the date of this letter. Your approval would expire automatically should your response not be received by the REC within 6 months of the date of this letter. Please email your response to the REC Secretariat, Clarissa Graham (cgraham@sun.ac.za).

If a response is required, please respond to the points raised in a separate cover letter titled "Response to REC stipulations" AND if requested, HIGHLIGHT or use the TRACK CHANGES function to indicate corrections / amendments of ATTACHED DOCUMENTATION, to allow rapid scrutiny and appraisal.

1) ADEQUATE MITIGATION OF RISK; COUNSELLING SERVICES
It may be prudent to provide details of a counselling service in the informed consent forms, given that some of the questions asked concern personal and potentially sensitive issues.

2) INSTITUTIONAL AND EXTERNAL PERMISSIONS (Response Required)
Institutional permission has been applied for. The researcher must submit a copy of the institutional permission letter as soon as it is obtained.

Please provide a letter of response to all the points raised IN ADDITION to HIGHLIGHTING or using the TRACK CHANGES function to indicate ALL the corrections/amendments of ALL DOCUMENTS clearly in order to allow rapid scrutiny and appraisal.

Please take note of the general Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.

Please remember to use your **proposal number** (**SU-HSD-003553**) on any documents or correspondence with the REC concerning your research proposal.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

Also note that a progress report should be submitted to the Committee before the approval period has expired if a continuation is required. The Committee will then consider the continuation of the project for a further year (if necessary).

This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki and the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health). Annually a number of projects may be selected randomly for an external audit.

National Health Research Ethics Committee (NHREC) registration number REC-050411-032.

We wish you the best as you conduct your research.

If you have any questions or need further help, please contact the REC office at .

Included Documents:
DESC Report
REC: Humanities New Application

Sincerely,

Clarissa Graham
REC Coordinator
Research Ethics Committee: Human Research (Humanities)

ADDENDUM 3: PILOT STUDY AND PRE-INTERVENTION QUESTIONNAIRE

Dear student

Adjustment during the first year at university is a challenging experience for many students. This study investigates how first-year students at Stellenbosch University are adjusting to university life.

As a first-year student you are invited to participate in the study. Your honest responses to the questionnaire items are very important for this study. We hope that the findings from the study will in future inform support programs at Stellenbosch University.

The study has received ethical clearance by the appropriate structures at Stellenbosch University. All responses are anonymous and no identifiable particulars are required. If you agree to take part in the survey, please continue by clicking on the consent button below. This questionnaire will take approximately 15 minutes to complete. If you do not want to participate in the study, click the appropriate button and exit the survey.

Thank you for your participation!

☐ I hereby give consent and agree to participate in this study

☐ I do not want to participate in this study.

Section 1: Demographic details

Please mark your response with an x

1. Gender: ☐ Male ☐ Female ☐ Other

2. Race: ☐ Asian ☐ Black ☐ Coloured ☐ White ☐ Prefer not to say

3. First language: ☐ Afrikaans ☐ English ☐ Other

4. Nationality: ☐ South African ☐ Other

5. Living environment:
   ☐ University Residence
   ☐ Other accommodation in Stellenbosch
   ☐ Accommodation outside of Stellenbosch

7. Are you from the Western Cape? ☐ Yes ☐ No

8. Educational background of parents:
   One or both my parents hold a post-school qualification (university/college qualification)
   ☐ Yes ☐ No

9. Please indicate the category in which your average (without Life Orientation) for the final Grade 12 examination falls
   ☐ 50-59% ☐ 60-69% ☐ 70-79% ☐ 80-100%

10. How often do you have contact with your mentor/mentor group:
    ☐ On a weekly basis
    ☐ Once every two weeks
    ☐ Once a month
    ☐ I only had contact during the welcoming period
    ☐ I have not participated in the mentor program

Section 2: Questions pertaining to your adjustment

Please mark your response with an x

		Applies very closely to me							Doesn't apply to me at all	
1.	I feel that I fit well as part of the university environment.									
2.	I have been feeling tense or nervous lately.									
3.	I have been keeping up to date with my academic work.									
4.	I am meeting as many people, and making as many friends as I would like at university.									
5.	I know why I'm at university and what I want out of it.									
6.	I am finding academic work at university difficult.									
7.	Lately I have been feeling down and moody a lot.									
8.	I am very involved with social activities at university.									
9.	I am adjusting well to university.									
10.	I did not cope well during early assessment.									
11.	I have felt tired much of the time lately.									
12.	Standing on my own feet, taking responsibility for myself, has not been easy.									
13.	I am satisfied with the level at which I am performing academically.									
14.	I have had informal, personal contacts with university lecturers.									
15.	I am pleased now about my decision to go to university.									
16.	I am pleased about my decision to attend this university in particular.									
17.	I'm not working as hard as I should for the course.									
18.	I have several people I feel close to at university.									
19.	My academic goals are well defined.									
20.	I haven't been able to control my emotions very well lately.									
21.	I'm not really clever enough for the academic work I am expected to be doing now.									
22.	Homesickness or missing home is a source of difficulty for me now.									
23.	Getting a university degree is very important to me.									
24.	My appetite has been good lately.									
25.	I haven't been very efficient in the use of my study time lately.									
26.	I enjoy living in a university residence (Please skip this question if you do not live in a residence).									
27.	I enjoy writing essays or papers for courses.									

28.	I have been having a lot of headaches lately.									
29.	I really haven't had much motivation for studying lately.									
30.	I am satisfied with the extracurricular activities available at university.									
31.	I've given a lot of thought lately to whether I should ask help from the Counselling Services or from a psychologist outside university.									
32.	Lately I have been having doubts about the value of a university education.									
33.	I am getting along very well with my roommate(s)/housemate(s) at university (Please skip this question if you do not have a roommate).									
34.	I wish I were at another university.									
35.	I've put on (or lost) too much weight.									
36.	I am satisfied with the number and variety of courses available at university.									
37.	I feel that I have enough social skills to get along well in the university setting.									
38.	I have been getting angry too easily lately.									
39.	Recently I have had trouble concentrating in lectures or when I try to study.									
40.	I haven't been sleeping very well.									
41.	I'm not doing well enough academically for the amount of work I put in.									
42.	I am having difficulty feeling at ease with other people at university.									
43.	I am satisfied with the courses available at university.									
44.	I am attending lectures regularly.									
45.	Sometimes my thinking gets muddled up too easily.									
46.	I am satisfied with the quality of the courses at university.									
47.	I expect to stay at this university for a bachelor's degree.									
48.	I haven't been mixing too well with the opposite sex lately.									
49.	I worry a lot about my university expenses.									
50.	I am enjoying my academic work at university.									
51.	I have been feeling lonely a lot at university lately.									
52.	I am having a lot of trouble getting started on academic assignments.									
53.	I feel I have good control over my life situation at university.									
54.	I am satisfied with my academic programme for this semester.									
55.	I have been feeling in good health lately.									
56.	I feel I am very different from other students at university in ways that I don't like.									
57.	On balance, I would rather be home than here.									
58.	Most of the things I am interested in are not related to any of my course work at university.									

59.	Lately, I have been thinking about transferring to another university.									
60.	Lately, I have been thinking about dropping out of university all together and for good.									
61.	I find myself giving considerable thought to taking time off from university and finishing later.									
62.	I am very satisfied with the lecturers I have now in my courses.									
63.	I have some good friends or acquaintances at university with whom I can talk about any problems I may have.									
64.	I am experiencing a lot of difficulty coping with the stress imposed upon me at university.									
65.	I am quite satisfied with my social life at university.									
66.	I'm quite satisfied with my academic situation at university.									
67.	I feel confident that I will be able to deal in a satisfactory manner with future challenges here at university.									

Thank you for completing the questionnaire. Feel free to contact Angelique McConney at angelique@sun.ac.za for any questions or concerns regarding the study.

ADDENDUM 4: POST-INTERVENTION SURVEY QUESTIONNAIRE

Dear student

Adjustment during the first year at university is a challenging experience for many students. This study investigates how first-year students at Stellenbosch University are adjusting to university life.

As a first-year student you are invited to participate in the study. Your honest responses to the questionnaire items are very important for this study. We hope that the findings from the study will in future inform support programs at Stellenbosch University.

The study has received ethical clearance by the appropriate structures at Stellenbosch University. All responses are anonymous and no identifiable particulars are required. If you agree to take part in the survey, please continue by clicking on the consent button below. This questionnaire will take approximately 15 minutes to complete. If you do not want to participate in the study, click the appropriate button and exit the survey.

Thank you for your participation!

☐ I hereby give consent and agree to participate in this study

☐ I do not want to participate in this study.

Section 1: Demographic details

Please mark your response with an x

1. Gender: ☐ Male ☐ Female ☐ Other

2. Race: ☐ Asian ☐ Black ☐ Coloured ☐ White ☐ Prefer not to say

3. First language: ☐ Afrikaans ☐ English ☐ Other

4. Nationality: ☐ South African ☐ Other

5. Living environment:
   ☐ University Residence
   ☐ Other accommodation in Stellenbosch
   ☐ Accommodation outside of Stellenbosch

7. Are you from the Western Cape? ☐ Yes ☐ No

8. Educational background of parents:
   One or both my parents hold a post-school qualification (university/college qualification)
   ☐ Yes ☐ No

9. Please indicate the category in which your average (without Life Orientation) for the final Grade 12 examination falls
   ☐ 50-59% ☐ 60-69% ☐ 70-79% ☐ 80-100%

10. How often do you have contact with your mentor/mentor group:
   ☐ On a weekly basis
   ☐ Once every two weeks
   ☐ Once a month
   ☐ I only had contact during the welcoming period
   ☐ I have not participated in the mentor program

10. Previous participation in the study:

   Did you complete this questionnaire (as part of this study) earlier this year?

   ☐ Yes

   ☐ No

Section 2: Questions pertaining to your adjustment

Please mark your response with an x

		Applies very closely to me							Doesn't apply to me at all	
1.	I feel that I fit well as part of the university environment.									
2.	I have been feeling tense or nervous lately.									
3.	I have been keeping up to date with my academic work.									
4.	I am meeting as many people, and making as many friends as I would like at university.									
5.	I know why I'm at university and what I want out of it.									
6.	I am finding academic work at university difficult.									
7.	Lately I have been feeling down and moody a lot.									
8.	I am very involved with social activities at university.									
9.	I am adjusting well to university.									
10.	I did not cope well during early assessment.									
11.	I have felt tired much of the time lately.									
12.	Standing on my own feet, taking responsibility for myself, has not been easy.									
13.	I am satisfied with the level at which I am performing academically.									
14.	I have had informal, personal contacts with university lecturers.									
15.	I am pleased now about my decision to go to university.									
16.	I am pleased about my decision to attend this university in particular.									
17.	I'm not working as hard as I should for the course.									
18.	I have several people I feel close to at university.									
19.	My academic goals are well defined.									
20.	I haven't been able to control my emotions very well lately.									
21.	I'm not really clever enough for the academic work I am expected to be doing now.									
22.	Homesickness or missing home is a source of difficulty for me now.									
23.	Getting a university degree is very important to me.									
24.	My appetite has been good lately.									
25.	I haven't been very efficient in the use of my study time lately.									
26.	I enjoy living in a university residence (Please skip this question if you do not live in a residence).									
27.	I enjoy writing essays or papers for courses.									

28.	I have been having a lot of headaches lately.									
29.	I really haven't had much motivation for studying lately.									
30.	I am satisfied with the extracurricular activities available at university.									
31.	I've given a lot of thought lately to whether I should ask help from the Counselling Services or from a psychologist outside university.									
32.	Lately I have been having doubts about the value of a university education.									
33.	I am getting along very well with my roommate(s)/housemate(s) at university (Please skip this question if you do not have a roommate).									
34.	I wish I were at another university.									
35.	I've put on (or lost) too much weight.									
36.	I am satisfied with the number and variety of courses available at university.									
37.	I feel that I have enough social skills to get along well in the university setting.									
38.	I have been getting angry too easily lately.									
39.	Recently I have had trouble concentrating in lectures or when I try to study.									
40.	I haven't been sleeping very well.									
41.	I'm not doing well enough academically for the amount of work I put in.									
42.	I am having difficulty feeling at ease with other people at university.									
43.	I am satisfied with the courses available at university.									
44.	I am attending lectures regularly.									
45.	Sometimes my thinking gets muddled up too easily.									
46.	I am satisfied with the quality of the courses at university.									
47.	I expect to stay at this university for a bachelor's degree.									
48.	I haven't been mixing too well with the opposite sex lately.									
49.	I worry a lot about my university expenses.									
50.	I am enjoying my academic work at university.									
51.	I have been feeling lonely a lot at university lately.									
52.	I am having a lot of trouble getting started on academic assignments.									
53.	I feel I have good control over my life situation at university.									
54.	I am satisfied with my academic programme for this semester.									
55.	I have been feeling in good health lately.									
56.	I feel I am very different from other students at university in ways that I don't like.									
57.	On balance, I would rather be home than here.									
58.	Most of the things I am interested in are not related to any of my course work at university.									

59.	Lately, I have been thinking about transferring to another university.									
60.	Lately, I have been thinking about dropping out of university all together and for good.									
61.	I find myself giving considerable thought to taking time off from university and finishing later.									
62.	I am very satisfied with the lecturers I have now in my courses.									
63.	I have some good friends or acquaintances at university with whom I can talk about any problems I may have.									
64.	I am experiencing a lot of difficulty coping with the stress imposed upon me at university.									
65.	I am quite satisfied with my social life at university.									
66.	I'm quite satisfied with my academic situation at university.									
67.	I feel confident that I will be able to deal in a satisfactory manner with future challenges here at university.									

Thank you for completing the questionnaire. Feel free to contact Angelique McConney at angelique@sun.ac.za for any questions or concerns regarding the study.

ADDENDUM 5: FOCUS GROUP DISCUSSION INTERVIEW SCHEDULE

Focus Group Interview Schedule

How did you experience the peer mentoring program?

Why did you continue to participate in the program beyond the welcoming period?

How often did you meet with your mentor or mentor group?

How did you benefit from participating in the program?

How, if at all, did the peer mentoring programme contribute to your:

- Attachment to the university
- Personal-emotional adjustment
- Academic adjustment
- Social adjustment?

How would you describe the relationship you shared with your mentor?

If you shared a positive relationship with you mentor, what contributed to this?

If you had a negative relationship with your mentor, what do you think contributed to this?

What characteristics did a good mentor have?

What is your understanding of the Be Well (wellness component) of the program?

How was the wellness component implemented in your mentor sessions?

How have you benefited specifically from the wellness component of the mentor program?

Was there challenges/problems you encountered specifically with of the Be Well component of the program?

Which aspects of the program has room for improvement?

How should the program be adjusted/changed, if at all, for future first-year students to benefit optimally from participation in it?

ADDENDUM 6: FOCUS GROUP DISCUSSION CONSENT FORM

UNIVERSITEIT•STELLENBOSCH•UNIVERSITY
jou kennisvennoot • your knowledge partner

STELLENBOSCH UNIVERSITY

CONSENT TO PARTICIPATE IN RESEARCH

EVALUATING THE CONTRIBUTION OF A PEER MENTORING PROGRAM TO THE ADJUSTMENT OF FIRST-YEAR UNIVERSITY STUDENTS

You are requested to participate in a research study conducted by Angelique McConney, MAPsych, from the Centre for Student Counselling and Development (CSCD) at Stellenbosch University. This research study is part of the requirement for a PhD in Curriculum Studies in the Faculty of Education, Stellenbosch University.

1. PURPOSE OF THE STUDY

The purpose of the study is to explore what role an existing peer mentoring program at Stellenbosch University plays in the adjustment of participating first-year students.

2. PROCEDURES

If you agree to participate in the study you will be required to take part in a focus group session with other students. The focus group will take approximately 90 minutes.

3. POTENTIAL RISKS AND DISCOMFORTS

Minimal risks and discomfort is anticipated to the participants in this study. However, some participants might be uncomfortable voicing negative experiences about the peer mentoring program. It must be highlighted that no identifying information will be used when reporting on the focus group discussions. As a participant you will not be coerced into saying anything. You are encouraged to honestly share your experience of the peer mentoring program. While unlikely, the focus group discussion could trigger some emotional distress (depending on the nature of the content that emerges). In the event of this happening, the relevant participant/s will be referred to the Centre for Student Counselling and Development for support.

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Participants might not directly benefit from the study. However, you will be part of the evaluation of a program that might benefit many first year students in the future. Being in a position of such influence might in itself be rewarding to some participants. It is envisioned that the research can assist Stellenbosch University with the implementation of support initiatives to first-year students, including the existing peer mentoring program that has been informed by scientific knowledge. As a participant your input will be valuable in the creation of this scientific knowledge.

4. PAYMENT FOR PARTICIPATION

No payment is required for your participation. This is a voluntary exercise that is contingent on your participation.

5. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. The information might be inspected by the University of Stellenbosch, Human Research Ethics Committee. The records will only be utilized by them in carrying out their obligations relating to this study.

You are not required to disclose any personal information and you will remain anonymous. Confidentiality will be maintained at all times. For the focus groups, voice recordings of the sessions will be made. These audio tapes as well as the hard copy records will be kept locked while being transcribed at the researcher's office at

the Centre for Student Counselling and Development, Stellenbosch University. All audio tapes will be destroyed once transcriptions are done. Any hard copy records will be kept for five years, as required by law. During this period, these documents will also be locked up at the afore-mentioned office. Electronic copies will be stored in a password protected folder on the researcher's computer.

The results of the research study might be used for other academic purposes such as presentations and/or publications within the higher education sector. In the event of this happening, no identifying information will be included in these presentations/publications.

6. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

7. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Angelique McConney at Work Telephone: 021 808 4994 or via email on angelique@sun.ac.za. Alternatively you can also contact the study leader, Prof Magda Fourie-Malherbe at mfourie@sun.ac.za, Work Telephone 021 808 3908.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

The information above was described to _____ (*name of participant*) by Mrs A McConney in (*Afrikaans/English/Xhosa/other*) and I, the participant, am in command of this language or it was satisfactorily translated to me. I, the participant, was given the opportunity to ask questions and these questions were answered to my.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

---

1 Name of Subject/Participant

_____

Signature of Participant

_____

2 Date

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____ (*name of the subject/participant*). He/she was encouraged and given ample time to ask me any questions. This conversation was conducted in [*Afrikaans/*English/*Xhosa/*Other*] and [*no translator was used/this conversation was translated into* _____ by _____].

_____ _____

Signature of Investigator

ADDENDUM 7: RELIABILITY ANALYSIS OF SACQ

1.1. Attachment

Cronbach's alpha and 95% CI: 0.89(0.88, 0.90)
Summary for scale: Mean=43.2904 Std.Dv.=20.5586 Valid N:1071
(Evaluating.the.contribution.of.a.peer.mentoring.program.to.the.adjustm
irst-year.university.students_spss in resultate.stw)

variable	Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Squared Multp. R	Alpha if deleted
question 3.1	40.03	367.36	19.17	0.68	0.55	0.88
question 3.4	39.20	375.08	19.37	0.48	0.44	0.89
question 3.15	40.87	371.22	19.27	0.67	0.65	0.88
question 3.16	41.11	369.38	19.22	0.70	0.69	0.88
question 3.34(reversed)	40.98	361.14	19.00	0.68	0.70	0.88
question 3.36	40.63	388.65	19.71	0.37	0.18	0.89
question 3.42(reversed)	39.29	360.55	18.99	0.60	0.45	0.89
question 3.47	41.44	388.47	19.71	0.48	0.30	0.89
question 3.56(reversed)	39.63	363.80	19.07	0.54	0.38	0.89
question 3.57(reversed)	39.65	359.45	18.96	0.59	0.37	0.89
question 3.59(reversed)	41.10	359.91	18.97	0.69	0.71	0.88
question 3.60(reversed)	41.17	369.27	19.22	0.60	0.65	0.89
question 3.61(reversed)	40.90	361.46	19.01	0.62	0.67	0.89
question 3.65	39.34	372.83	19.31	0.51	0.45	0.89
question 3.26	40.73	390.65	19.76	0.37	0.27	0.89

1.2. Academic adjustment

variable	Cronbach's alpha and 95% CI: 0.87(0.86, 0.88) Summary for scale: Mean=98.1455 Std.Dv.=26.7236 Valid N:1072 (Evaluating.the.contribution.of.a.peer.mentoring.program.to.the.adjustm irst-year.university.students_spss in resultate.stw) Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Squared Multp. R	Alpha if deleted
question 3.3	94.31	658.58	25.66	0.53	0.38	0.87
question 3.5	95.60	670.76	25.90	0.37	0.35	0.87
question 3.6(reversed)	92.12	670.75	25.90	0.38	0.38	0.87
question 3.10(reversed)	93.22	638.52	25.27	0.55	0.48	0.87
question 3.13	93.01	649.90	25.49	0.49	0.50	0.87
question 3.17(reversed)	92.64	651.38	25.52	0.45	0.38	0.87
question 3.19	94.68	669.66	25.88	0.40	0.29	0.87
question 3.21(reversed)	94.28	635.22	25.20	0.57	0.47	0.87
question 3.23	96.64	697.20	26.40	0.22	0.32	0.87
question 3.25(reversed)	92.48	668.57	25.86	0.35	0.34	0.87
question 3.27	92.29	699.11	26.44	0.07	0.13	0.88
question 3.29(reversed)	92.95	643.79	25.37	0.52	0.45	0.87
question 3.32(reversed)	95.16	644.69	25.39	0.49	0.40	0.87
question 3.36	95.48	671.88	25.92	0.36	0.57	0.87
question 3.39(reversed)	92.35	640.49	25.31	0.56	0.46	0.87
question 3.41(reversed)	93.36	652.13	25.54	0.43	0.45	0.87
question 3.43	95.58	670.45	25.89	0.39	0.60	0.87
question 3.44	96.21	685.03	26.17	0.30	0.28	0.87
question 3.50	94.65	650.90	25.51	0.57	0.46	0.87
question 3.52(reversed)	92.99	639.43	25.29	0.56	0.43	0.87
question 3.54	94.71	650.83	25.51	0.54	0.40	0.87
question 3.58(reversed)	94.39	649.43	25.48	0.46	0.32	0.87
question 3.62	94.44	666.39	25.81	0.38	0.26	0.87
question 3.66	93.80	637.49	25.25	0.65	0.60	0.86

1.3. Personal-emotional

variable	Cronbach's alpha and 95% CI: 0.88(0.86, 0.89) Summary for scale: Mean=72.1207 Std.Dv.=22.8684 Valid N:1077 (Evaluating.the.contribution.of.a.peer.mentoring.program.to.the.adjustm irst-year.university.students_spss in resultate.stw) Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Squared Multp. R	Alpha if deleted
question 3.2(reversed)	66.37	458.84	21.42	0.57	0.38	0.87
question 3.7(reversed)	67.05	442.20	21.03	0.68	0.52	0.86
question 3.11(reversed)	65.54	475.83	21.81	0.47	0.29	0.87
question 3.12(reversed)	67.63	467.63	21.62	0.46	0.23	0.87
question 3.20(reversed)	67.61	453.98	21.31	0.57	0.40	0.87
question 3.24	68.87	478.80	21.88	0.41	0.22	0.87
question 3.28(reversed)	67.85	456.09	21.36	0.51	0.27	0.87
question 3.31(reversed)	68.19	441.21	21.00	0.58	0.37	0.87
question 3.35(reversed)	67.95	459.61	21.44	0.46	0.24	0.87
question 3.38(reversed)	68.37	454.57	21.32	0.57	0.37	0.87
question 3.40(reversed)	66.92	450.36	21.22	0.57	0.36	0.87
question 3.45(reversed)	66.60	454.38	21.32	0.59	0.37	0.86
question 3.49(reversed)	66.03	480.81	21.93	0.30	0.13	0.88
question 3.55	67.81	467.29	21.62	0.50	0.29	0.87
question 3.64(reversed)	66.89	446.23	21.12	0.70	0.51	0.86

1.4. Social adjustment

variable	Cronbach's alpha and 95% CI: 0.89(0.87, 0.89) Summary for scale: Mean=75.0514 Std.Dv.=25.7008 Valid N:1070 (Evaluating.the.contribution.of.a.peer.mentoring.program.to.the.adjustme st-year.university.students_spss in resultate.stw) Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Squared Multp. R	Alpha if deleted
question 3.1	71.79	585.23	24.19	0.74	0.64	0.87
question 3.4	70.96	583.58	24.16	0.65	0.51	0.88
question 3.8	69.69	608.08	24.66	0.39	0.30	0.88
question 3.9	71.41	593.48	24.36	0.66	0.54	0.88
question 3.14	68.21	659.98	25.69	-0.05	0.07	0.90
question 3.16	72.87	607.23	24.64	0.54	0.43	0.88
question 3.18	71.34	582.25	24.13	0.61	0.49	0.88
question 3.22(reversed)	71.08	610.13	24.70	0.32	0.26	0.89
question 3.30	71.48	608.87	24.68	0.41	0.23	0.88
question 3.37	71.66	585.05	24.19	0.67	0.47	0.87
question 3.42(reversed)	71.04	581.15	24.11	0.62	0.49	0.88
question 3.46	72.62	627.14	25.04	0.35	0.22	0.88
question 3.48(reversed)	71.02	594.30	24.38	0.45	0.28	0.88
question 3.51(reversed)	70.35	572.65	23.93	0.64	0.51	0.87
question 3.56(reversed)	71.39	589.59	24.28	0.52	0.39	0.88
question 3.57(reversed)	71.41	592.10	24.33	0.50	0.38	0.88
question 3.63	71.91	586.79	24.22	0.57	0.44	0.88
question 3.65	71.10	579.00	24.06	0.69	0.56	0.87
question 3.26	72.50	611.87	24.74	0.47	0.31	0.88
question 3.33	72.13	624.94	25.00	0.33	0.19	0.88

1.5. Total adjustment

variable	Cronbach's alpha and 95% CI: 0.95(0.94, 0.95) Summary for scale: Mean=265.856 Std.Dv.=73.6267 Valid N:1066 (Evaluating.the.contribution.of.a.peer.mentoring.program.to.the.adjustment.of.first-year.university.students_spss in resultate.stw) Standardized alpha: 0.95 Average inter-item corr.: 0.23					
	Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Squared Multp. R	Alpha if deleted
question 3.1	262.60	5221.58	72.26	0.67	0.68	0.95
question 3.2 (reversed)	260.10	5251.91	72.47	0.46	0.45	0.95
question 3.3	262.03	5290.62	72.74	0.44	0.42	0.95
question 3.4	261.77	5260.21	72.53	0.46	0.55	0.95
question 3.5	263.31	5299.77	72.80	0.39	0.40	0.95
question 3.6 (reversed)	259.82	5312.40	72.89	0.34	0.47	0.95
question 3.7 (reversed)	260.78	5181.96	71.99	0.61	0.58	0.95
question 3.8	260.50	5327.65	72.99	0.24	0.36	0.95
question 3.9	262.22	5221.02	72.26	0.68	0.64	0.95
question 3.10 (reversed)	260.94	5224.35	72.28	0.52	0.52	0.95
question 3.11(reversed)	259.28	5305.90	72.84	0.35	0.40	0.95
question 3.12 (reversed)	261.36	5243.71	72.41	0.47	0.39	0.95
question 3.13	260.72	5267.89	72.58	0.42	0.54	0.95
question 3.14	259.01	5437.19	73.74	-0.08	0.17	0.95
question 3.15	263.44	5244.50	72.42	0.62	0.70	0.95
question 3.16	263.68	5266.24	72.57	0.55	0.72	0.95
question 3.17 (reversed)	260.36	5289.23	72.73	0.34	0.42	0.95
question 3.18	262.14	5256.97	72.50	0.43	0.53	0.95

question 3.19	262.39	5302.65	72.82	0.39	0.36	0.95
question 3.20 (reversed)	261.35	5224.91	72.28	0.50	0.46	0.95
question 3.21 (reversed)	262.01	5197.95	72.10	0.58	0.53	0.95
question 3.22(reversed)	261.89	5262.55	72.54	0.38	0.34	0.95
question 3.23	264.35	5368.01	73.27	0.25	0.44	0.95
question 3.24	262.60	5262.50	72.54	0.47	0.32	0.95
question 3.25 (reversed)	260.20	5330.78	73.01	0.25	0.39	0.95
question 3.27	260.00	5406.96	73.53	0.01	0.23	0.95
question 3.28 (reversed)	261.59	5239.46	72.38	0.43	0.35	0.95
question 3.29 (reversed)	260.67	5244.14	72.42	0.47	0.51	0.95
question 3.30	262.28	5287.10	72.71	0.37	0.31	0.95
question 3.31 (reversed)	261.93	5166.90	71.88	0.56	0.46	0.95
question 3.32 (reversed)	262.88	5204.35	72.14	0.57	0.55	0.95
question 3.34 (reversed)	263.56	5245.00	72.42	0.53	0.74	0.95
question 3.35 (reversed)	261.71	5236.62	72.36	0.43	0.31	0.95
question 3.36	263.20	5302.02	72.81	0.37	0.62	0.95
question 3.37	262.46	5236.70	72.37	0.55	0.52	0.95
question 3.38 (reversed)	262.11	5209.16	72.17	0.54	0.46	0.95
question 3.39 (reversed)	260.07	5233.92	72.35	0.51	0.56	0.95
question 3.40 (reversed)	260.66	5216.45	72.23	0.49	0.43	0.95

question 3.41 (reversed)	261.08	5228.83	72.31	0.50	0.52	0.95
question 3.42 (reversed)	261.85	5187.53	72.02	0.63	0.56	0.95
question 3.43	263.29	5295.76	72.77	0.41	0.64	0.95
question 3.44	263.91	5351.10	73.15	0.26	0.36	0.95
question 3.45 (reversed)	260.34	5216.12	72.22	0.54	0.48	0.95
question 3.46	263.42	5316.00	72.91	0.39	0.47	0.95
question 3.47	264.00	5329.73	73.01	0.35	0.39	0.95
question 3.48 (reversed)	261.83	5257.61	72.51	0.39	0.34	0.95
question 3.49 (reversed)	259.76	5302.55	72.82	0.28	0.22	0.95
question 3.50	262.36	5259.98	72.53	0.52	0.53	0.95
question 3.51 (reversed)	261.15	5175.77	71.94	0.62	0.60	0.95
question 3.52 (reversed)	260.71	5227.33	72.30	0.53	0.48	0.95
question 3.53	261.75	5216.43	72.22	0.61	0.55	0.95
question 3.54	262.43	5248.41	72.45	0.53	0.46	0.95
question 3.55	261.55	5245.21	72.42	0.49	0.45	0.95
question 3.56 (reversed)	262.20	5200.69	72.12	0.57	0.47	0.95
question 3.57 (reversed)	262.23	5211.94	72.19	0.54	0.47	0.95
question 3.58 (reversed)	262.10	5231.65	72.33	0.50	0.42	0.95
question 3.59 (reversed)	263.67	5242.88	72.41	0.53	0.73	0.95
question 3.60 (reversed)	263.73	5242.48	72.40	0.55	0.71	0.95

question 3.61 (reversed)	263.47	5219.43	72.25	0.56	0.69	0.95
question 3.62	262.16	5295.04	72.77	0.37	0.34	0.95
question 3.63	262.72	5251.30	72.47	0.45	0.49	0.95
question 3.64 (reversed)	260.63	5192.49	72.06	0.63	0.59	0.95
question 3.65	261.90	5236.88	72.37	0.53	0.62	0.95
question 3.66	261.52	5217.53	72.23	0.61	0.68	0.95
question 3.67	262.53	5236.50	72.36	0.60	0.52	0.95
question 3.26	263.30	5314.11	72.90	0.35	0.36	0.95
question 3.33	262.94	5346.18	73.12	0.24	0.22	0.95

Reliability Analysis for the SACQ: Post-test

1.6. Attachment

variable	Cronbach's alpha and 95% CI: 0.88(0.87, 0.90) Summary for scale: Mean=44.1915 Std.Dv.=20.2064 Valid N:423 (Nov responses in resultate.stw) Standardized alpha: 0.89 Average inter-item corr.: 0.35					
	Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Squared Multp. R	Alpha if deleted
question 3.1	40.90	353.05	18.79	0.65	0.50	0.87
question 3.4	40.06	362.27	19.03	0.46	0.53	0.88
question 3.15	41.85	360.77	18.99	0.62	0.56	0.87
question 3.16	41.90	352.49	18.77	0.68	0.70	0.87
question 3.34(reversed)	41.85	351.13	18.74	0.65	0.72	0.87
question 3.36	41.42	374.85	19.36	0.37	0.22	0.88
question 3.42(reversed)	40.19	350.98	18.73	0.55	0.44	0.88
question 3.47	42.22	373.92	19.34	0.44	0.30	0.88
question 3.56(reversed)	40.52	354.24	18.82	0.52	0.39	0.88

question 3.57(reversed)	40.39	352.83	18.78	0.51	0.32	0.88
question 3.59(reversed)	41.78	343.70	18.54	0.65	0.68	0.87
question 3.60(reversed)	41.99	357.80	18.92	0.58	0.59	0.88
question 3.61(reversed)	41.78	352.23	18.77	0.58	0.61	0.88
question 3.65	40.43	360.45	18.99	0.50	0.49	0.88
question 3.26	41.41	365.67	19.12	0.46	0.26	0.88

1.7. Academic adjustment

variable	Cronbach's alpha and 95% CI: 0.87(0.85, 0.89) Summary for scale: Mean=99.4043 Std.Dv.=26.7218 Valid N:423 (Nov responses in resultate.stw) Standardized alpha: 0.87 Average inter-item corr.: 0.23					
	Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Squared Multp. R	Alpha if deleted
question 3.3	95.54	653.57	25.56	0.53	0.43	0.87
question 3.5	96.73	664.22	25.77	0.41	0.43	0.87
question 3.6(reversed)	93.44	670.23	25.89	0.36	0.40	0.87
question 3.10(reversed)	94.96	633.38	25.17	0.63	0.51	0.86
question 3.13	94.41	638.39	25.27	0.57	0.57	0.86
question 3.17(reversed)	93.84	659.93	25.69	0.37	0.38	0.87
question 3.19	95.96	663.48	25.76	0.47	0.41	0.87
question 3.21(reversed)	95.90	648.13	25.46	0.51	0.40	0.87
question 3.23	97.80	695.86	26.38	0.20	0.36	0.87
question 3.25(reversed)	93.52	665.80	25.80	0.36	0.44	0.87
question 3.27	93.68	694.65	26.36	0.08	0.12	0.88
question 3.29(reversed)	93.89	653.37	25.56	0.45	0.42	0.87
question 3.32(reversed)	96.41	647.43	25.44	0.49	0.38	0.87
question 3.36	96.63	679.07	26.06	0.29	0.63	0.87
question 3.39(reversed)	93.55	643.24	25.36	0.52	0.45	0.87
question 3.41(reversed)	94.56	653.33	25.56	0.40	0.46	0.87
question 3.43	96.72	678.42	26.05	0.30	0.64	0.87

question 3.44	96.81	676.22	26.00	0.30	0.32	0.87
question 3.50	95.84	643.16	25.36	0.61	0.55	0.86
question 3.52(reversed)	94.27	642.25	25.34	0.52	0.44	0.87
question 3.54	95.84	644.56	25.39	0.58	0.47	0.86
question 3.58(reversed)	95.33	643.22	25.36	0.52	0.35	0.87
question 3.62	95.61	665.55	25.80	0.41	0.29	0.87
question 3.66	95.07	631.04	25.12	0.70	0.67	0.86

1.8. Personal-emotional

variable	Cronbach's alpha and 95% CI: 0.89(0.87, 0.90) Summary for scale: Mean=73.5674 Std.Dv.=24.1619 Valid N:423 (Nov responses in resultate.stw) Standardized alpha: 0.89 Average inter-item corr.: 0.36					
	Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Squared Multp. R	Alpha if deleted
question 3.2(reversed)	67.66	506.22	22.50	0.63	0.48	0.88
question 3.7(reversed)	68.20	493.46	22.21	0.72	0.62	0.88
question 3.11(reversed)	67.14	519.82	22.80	0.60	0.43	0.88
question 3.12(reversed)	69.00	535.67	23.14	0.39	0.24	0.89
question 3.20(reversed)	68.78	499.27	22.34	0.67	0.53	0.88
question 3.24	70.20	526.73	22.95	0.48	0.30	0.89
question 3.28(reversed)	69.38	510.49	22.59	0.52	0.29	0.89
question 3.31(reversed)	69.29	501.93	22.40	0.53	0.33	0.89
question 3.35(reversed)	69.00	512.05	22.63	0.48	0.26	0.89
question 3.38(reversed)	69.72	512.79	22.64	0.55	0.36	0.88
question 3.40(reversed)	68.14	502.22	22.41	0.59	0.39	0.88
question 3.45(reversed)	68.11	505.49	22.48	0.62	0.42	0.88
question 3.49(reversed)	67.64	533.72	23.10	0.33	0.15	0.89
question 3.55	69.35	516.02	22.72	0.58	0.42	0.88
question 3.64(reversed)	68.34	493.75	22.22	0.75	0.61	0.88

1.9. Social adjustment

variable	Cronbach's alpha and 95% CI: 0.89(0.87, 0.90) Summary for scale: Mean=74.3783 Std.Dv.=26.1226 Valid N:423 (Nov responses in resultate.stw) Standardized alpha: 0.89 Average inter-item corr.: 0.30					
	Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Squared Multp. R	Alpha if deleted
question 3.1	71.09	606.65	24.63	0.69	0.59	0.88
question 3.4	70.25	599.45	24.48	0.68	0.59	0.88
question 3.8	69.12	623.16	24.96	0.42	0.34	0.88
question 3.9	70.87	609.70	24.69	0.70	0.58	0.88
question 3.14	68.00	674.45	25.97	0.00	0.09	0.90
question 3.16	72.09	627.71	25.05	0.49	0.50	0.88
question 3.18	71.12	598.89	24.47	0.67	0.58	0.88
question 3.22(reversed)	70.29	631.83	25.14	0.30	0.29	0.89
question 3.30	70.66	624.56	24.99	0.44	0.28	0.88
question 3.37	71.17	614.27	24.78	0.60	0.44	0.88
question 3.42(reversed)	70.37	602.33	24.54	0.61	0.47	0.88
question 3.46	71.64	647.63	25.45	0.32	0.29	0.89
question 3.48(reversed)	70.17	624.68	24.99	0.37	0.27	0.89
question 3.51(reversed)	69.83	592.47	24.34	0.62	0.55	0.88
question 3.56(reversed)	70.70	616.12	24.82	0.49	0.41	0.88
question 3.57(reversed)	70.58	614.02	24.78	0.48	0.41	0.88
question 3.63	71.60	600.86	24.51	0.65	0.53	0.88
question 3.65	70.62	599.15	24.48	0.70	0.61	0.87
question 3.26	71.59	624.62	24.99	0.49	0.36	0.88
question 3.33	71.42	629.17	25.08	0.41	0.30	0.88

1.10. Total score

variable	Cronbach's alpha and 95% CI: 0.95(0.94, 0.96) Summary for scale: Mean=268.331 Std.Dv.=74.4180 Valid N:423 (Nov responses in resultate.stw) Standardized alpha: 0.95 Average inter-item corr.: 0.23					
	Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Squared Multp. R	Alpha if deleted
question 3.1	265.04	5343.06	73.10	0.59	0.66	0.95
question 3.2(reversed)	262.43	5334.99	73.04	0.51	0.56	0.95
question 3.3	264.47	5396.02	73.46	0.42	0.55	0.95
question 3.4	264.20	5359.41	73.21	0.48	0.65	0.95
question 3.5	265.65	5388.93	73.41	0.43	0.53	0.95
question 3.6(reversed)	262.37	5422.87	73.64	0.33	0.51	0.95
question 3.7(reversed)	262.96	5286.36	72.71	0.62	0.70	0.95
question 3.8	263.07	5427.89	73.67	0.25	0.46	0.95
question 3.9	264.82	5315.24	72.91	0.72	0.76	0.95
question 3.10(reversed)	263.89	5305.17	72.84	0.63	0.64	0.95
question 3.11(reversed)	261.91	5376.33	73.32	0.46	0.53	0.95
question 3.12(reversed)	263.77	5396.02	73.46	0.36	0.40	0.95
question 3.13	263.33	5339.44	73.07	0.52	0.64	0.95
question 3.14	261.95	5514.59	74.26	0.01	0.26	0.95
question 3.15	265.99	5372.56	73.30	0.56	0.70	0.95
question 3.16	266.04	5372.31	73.30	0.51	0.77	0.95
question 3.17(reversed)	262.76	5420.48	73.62	0.27	0.49	0.95
question 3.18	265.08	5359.48	73.21	0.47	0.65	0.95
question 3.19	264.88	5407.67	73.54	0.42	0.55	0.95
question 3.20(reversed)	263.54	5308.83	72.86	0.56	0.60	0.95
question 3.21(reversed)	264.83	5347.67	73.13	0.52	0.53	0.95
question 3.22(reversed)	264.25	5381.69	73.36	0.34	0.43	0.95
question 3.23	266.72	5481.44	74.04	0.20	0.54	0.95
question 3.24	264.96	5351.58	73.15	0.50	0.44	0.95
question 3.25(reversed)	262.45	5415.24	73.59	0.32	0.50	0.95
question 3.27	262.61	5498.91	74.15	0.05	0.25	0.95
question 3.28(reversed)	264.14	5359.09	73.21	0.39	0.43	0.95

question 3.29(reversed)	262.82	5373.52	73.30	0.43	0.50	0.95
question 3.30	264.61	5403.06	73.51	0.34	0.41	0.95
question 3.31(reversed)	264.05	5300.66	72.81	0.49	0.47	0.95
question 3.32(reversed)	265.34	5327.20	72.99	0.55	0.58	0.95
question 3.34(reversed)	265.99	5362.89	73.23	0.51	0.79	0.95
question 3.35(reversed)	263.77	5331.51	73.02	0.44	0.39	0.95
question 3.36	265.56	5428.13	73.68	0.32	0.69	0.95
question 3.37	265.13	5384.74	73.38	0.44	0.57	0.95
question 3.38(reversed)	264.48	5323.65	72.96	0.53	0.50	0.95
question 3.39(reversed)	262.47	5334.50	73.04	0.53	0.62	0.95
question 3.40(reversed)	262.90	5318.76	72.93	0.50	0.50	0.95
question 3.41(reversed)	263.48	5341.42	73.09	0.47	0.55	0.95
question 3.42(reversed)	264.33	5309.64	72.87	0.59	0.58	0.95
question 3.43	265.64	5424.17	73.65	0.34	0.70	0.95
question 3.44	265.74	5452.94	73.84	0.23	0.43	0.95
question 3.45(reversed)	262.88	5312.22	72.88	0.56	0.59	0.95
question 3.46	265.59	5425.31	73.66	0.36	0.56	0.95
question 3.47	266.35	5435.12	73.72	0.33	0.47	0.95
question 3.48(reversed)	264.12	5403.38	73.51	0.29	0.40	0.95
question 3.49(reversed)	262.40	5384.88	73.38	0.34	0.37	0.95
question 3.50	264.77	5348.73	73.13	0.56	0.63	0.95
question 3.51(reversed)	263.78	5284.98	72.70	0.59	0.66	0.95
question 3.52(reversed)	263.20	5336.29	73.05	0.52	0.55	0.95
question 3.53	264.29	5313.09	72.89	0.66	0.60	0.95
question 3.54	264.76	5343.51	73.10	0.56	0.53	0.95
question 3.55	264.11	5332.11	73.02	0.56	0.58	0.95
question 3.56(reversed)	264.66	5329.07	73.00	0.54	0.51	0.95
question 3.57(reversed)	264.53	5334.45	73.04	0.50	0.53	0.95
question 3.58(reversed)	264.26	5347.45	73.13	0.49	0.49	0.95
question 3.59(reversed)	265.92	5334.11	73.03	0.53	0.74	0.95

question 3.60(reversed)	266.13	5364.66	73.24	0.51	0.65	0.95
question 3.61(reversed)	265.92	5321.80	72.95	0.59	0.71	0.95
question 3.62	264.54	5411.84	73.57	0.36	0.45	0.95
question 3.63	265.55	5347.98	73.13	0.51	0.60	0.95
question 3.64(reversed)	263.10	5285.35	72.70	0.65	0.71	0.95
question 3.65	264.57	5351.39	73.15	0.52	0.70	0.95
question 3.66	264.00	5309.05	72.86	0.66	0.77	0.95
question 3.67	265.08	5343.95	73.10	0.65	0.65	0.95
question 3.26	265.55	5387.01	73.40	0.43	0.47	0.95
question 3.33	265.37	5390.12	73.42	0.39	0.40	0.95

ADDENDUM 8: FACTORIAL ANALYSIS OF THE INFLUENCE OF DEMOGRAPHIC VARIABLES

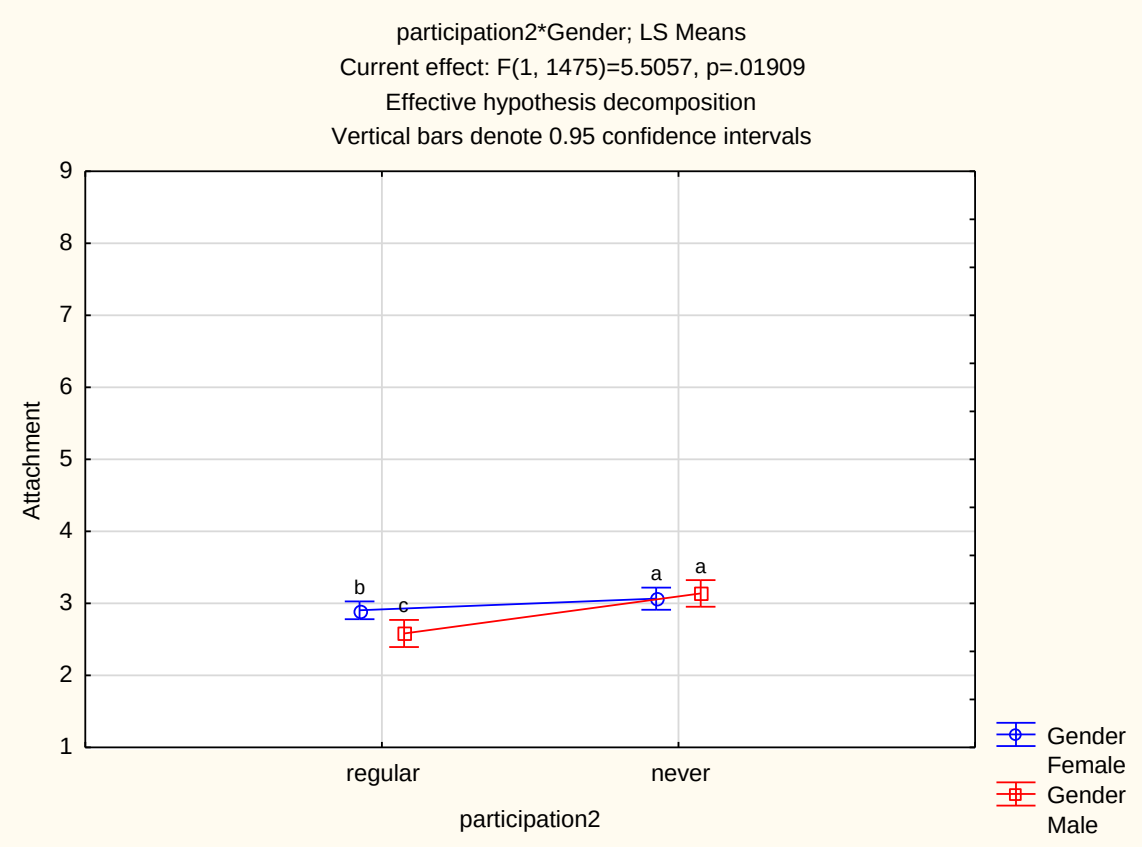
1. GENDER

1.1. Attachment

1.1.1. Univariate Tests of Significance for Attachment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Attachment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.3529				
	SS	Degr. of Freedom	MS	F	p
Intercept	8848.56	1	8848.56	4834.52	0.00
participation2	33.42	1	33.42	18.26	0.00
Gender	4.01	1	4.01	2.19	0.14
time	0.82	1	0.82	0.45	0.50
participation2*Gender	10.08	1	10.08	5.51	0.02
participation2*time	2.79	1	2.79	1.52	0.22
Gender*time	0.68	1	0.68	0.37	0.54
participation2*Gender*time	2.73	1	2.73	1.49	0.22
Error	2699.67	1475	1.83		

1.1.2. Participation2*Gender; LS Means



1.1.3. LSD test; variable Attachment (merged in resultate.stw)

Cell No.	LSD test; variable Attachment (merged in resultate.stw) Probabilities for Post Hoc Tests Error: Between MSE = 1.8303, df = 1475.0					
	participation2	Gender	{1} 2.8486	{2} 2.6128	{3} 3.0883	{4} 3.1504
1	regular	Female		0.01	0.01	0.00
2	regular	Male	0.01		0.00	0.00
3	never	Female	0.01	0.00		0.61
4	never	Male	0.00	0.00	0.61	

1.1.4. Descriptive Statistics (merged in resultate.stw)

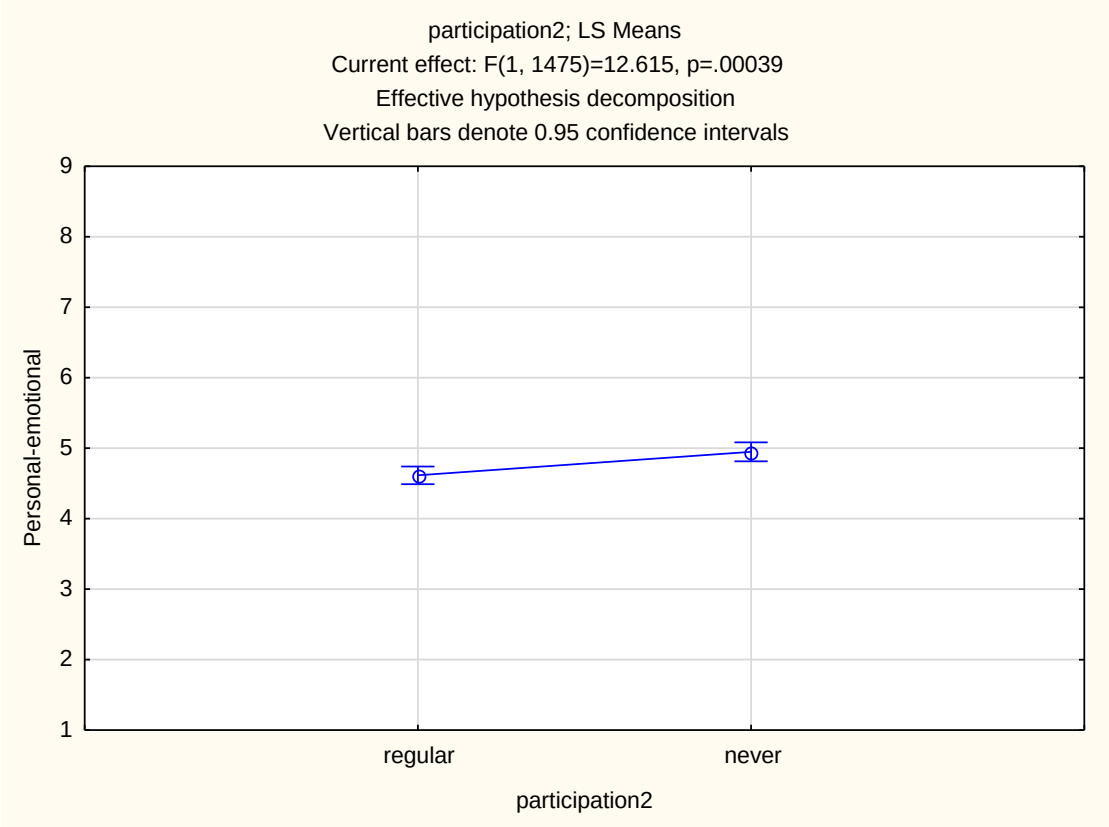
Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Attachment Mean	Attachment Std.Dev.
Total				1483	2.90	1.36
participation2	regular			957	2.78	1.33
participation2	never			526	3.11	1.41
Gender	Female			976	2.92	1.35
Gender	Male			507	2.84	1.39
time	1			1063	2.88	1.37
time	2			420	2.94	1.35
participation2*Gender	regular	Female		665	2.85	1.34
participation2*Gender	regular	Male		292	2.61	1.28
participation2*Gender	never	Female		311	3.09	1.37
participation2*Gender	never	Male		215	3.15	1.47
participation2*time	regular	1		745	2.75	1.32
participation2*time	regular	2		212	2.86	1.34
participation2*time	never	1		318	3.18	1.44
participation2*time	never	2		208	3.01	1.35
Gender*time	Female	1		704	2.90	1.35
Gender*time	Female	2		272	2.98	1.37
Gender*time	Male	1		359	2.84	1.42
Gender*time	Male	2		148	2.85	1.30
participation2*Gender*time	regular	Female	1	516	2.80	1.32
participation2*Gender*time	regular	Female	2	149	3.00	1.40
participation2*Gender*time	regular	Male	1	229	2.64	1.32
participation2*Gender*time	regular	Male	2	63	2.53	1.12
participation2*Gender*time	never	Female	1	188	3.17	1.39
participation2*Gender*time	never	Female	2	123	2.96	1.34
participation2*Gender*time	never	Male	1	130	3.19	1.53
participation2*Gender*time	never	Male	2	85	3.08	1.38

1.2. Personal-emotional

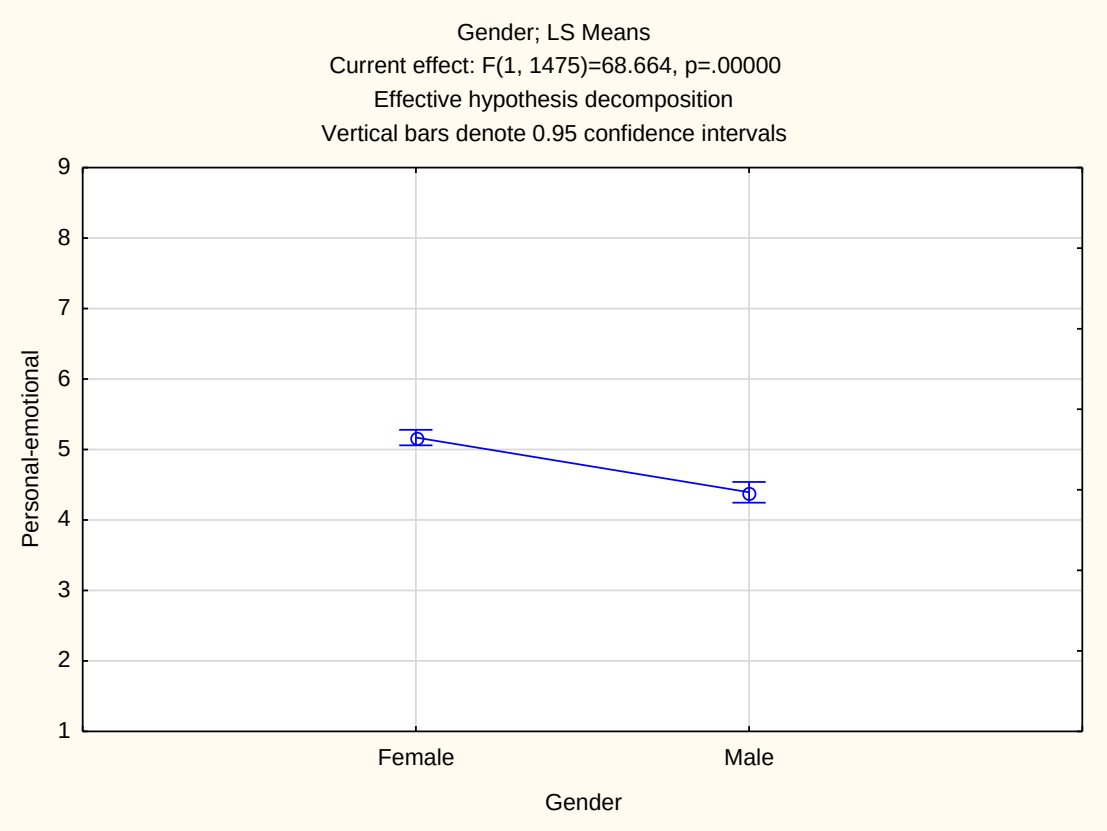
1.2.1. Univariate Tests of Significance for Personal-emotional (merged in resultate.stw)

Effect	Univariate Tests of Significance for Personal-emotional (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.5085				
	SS	Degr. of Freedom	MS	F	p
Intercept	23681.21	1	23681.21	10407.04	0.00
participation2	28.71	1	28.71	12.61	0.00
Gender	156.25	1	156.25	68.66	0.00
time	0.18	1	0.18	0.08	0.78
participation2*Gender	0.02	1	0.02	0.01	0.92
participation2*time	4.67	1	4.67	2.05	0.15
Gender*time	1.83	1	1.83	0.80	0.37
participation2*Gender*time	0.47	1	0.47	0.20	0.65
Error	3356.36	1475	2.28		

1.2.2. Participation2; LS Means



1.2.3. Gender; LS Means



1.2.4. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Personal-emotional Mean	Personal-emotional Std.Dev.
Total				1483	4.83	1.55
participation2	regular			957	4.72	1.53
participation2	never			526	5.04	1.58
Gender	Female			976	5.07	1.55
Gender	Male			507	4.38	1.46
time	1			1063	4.81	1.53
time	2			420	4.90	1.61
participation2*Gender	regular	Female		665	4.93	1.53
participation2*Gender	regular	Male		292	4.24	1.41
participation2*Gender	never	Female		311	5.35	1.55
participation2*Gender	never	Male		215	4.58	1.50
participation2*time	regular	1		745	4.68	1.50
participation2*time	regular	2		212	4.85	1.64
participation2*time	never	1		318	5.10	1.57
participation2*time	never	2		208	4.94	1.59
Gender*time	Female	1		704	5.02	1.53
Gender*time	Female	2		272	5.19	1.59

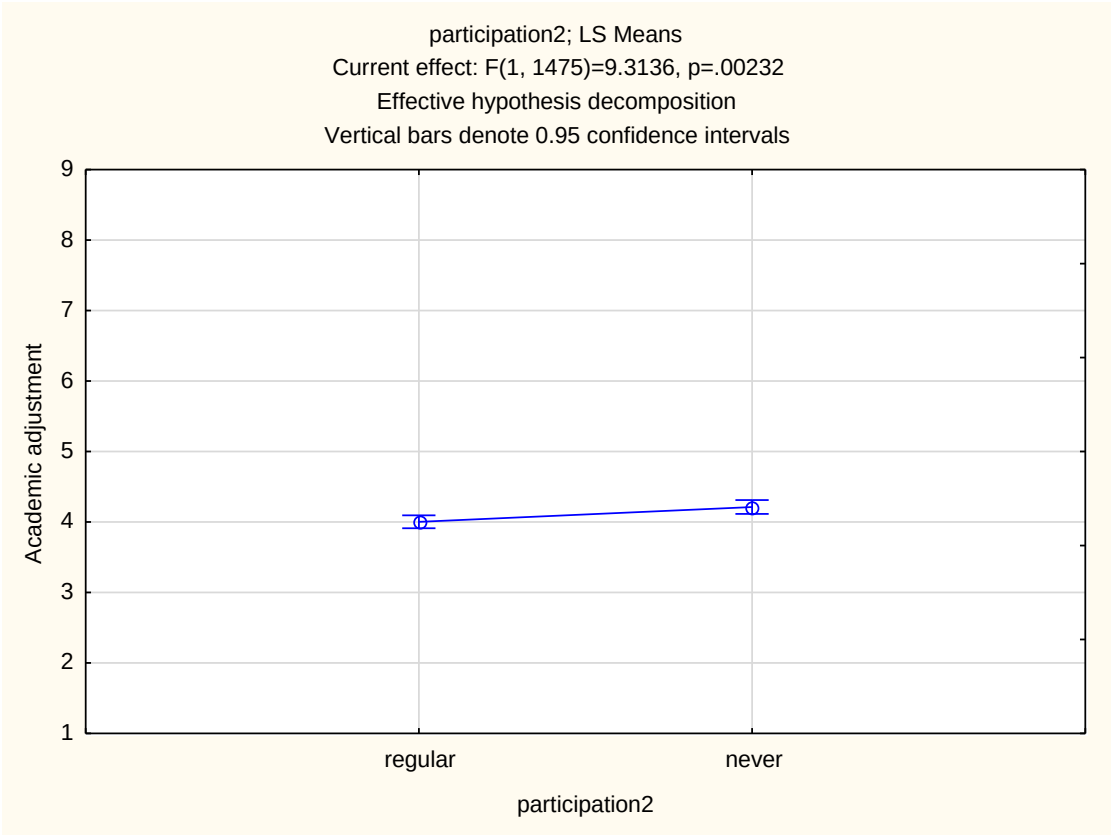
Gender*time	Male	1		359	4.39	1.43
Gender*time	Male	2		148	4.36	1.52
participation2*Gender*time	regular	Female	1	516	4.88	1.50
participation2*Gender*time	regular	Female	2	149	5.12	1.63
participation2*Gender*time	regular	Male	1	229	4.24	1.39
participation2*Gender*time	regular	Male	2	63	4.22	1.49
participation2*Gender*time	never	Female	1	188	5.40	1.56
participation2*Gender*time	never	Female	2	123	5.28	1.54
participation2*Gender*time	never	Male	1	130	4.66	1.47
participation2*Gender*time	never	Male	2	85	4.45	1.54

1.3. Academic adjustment

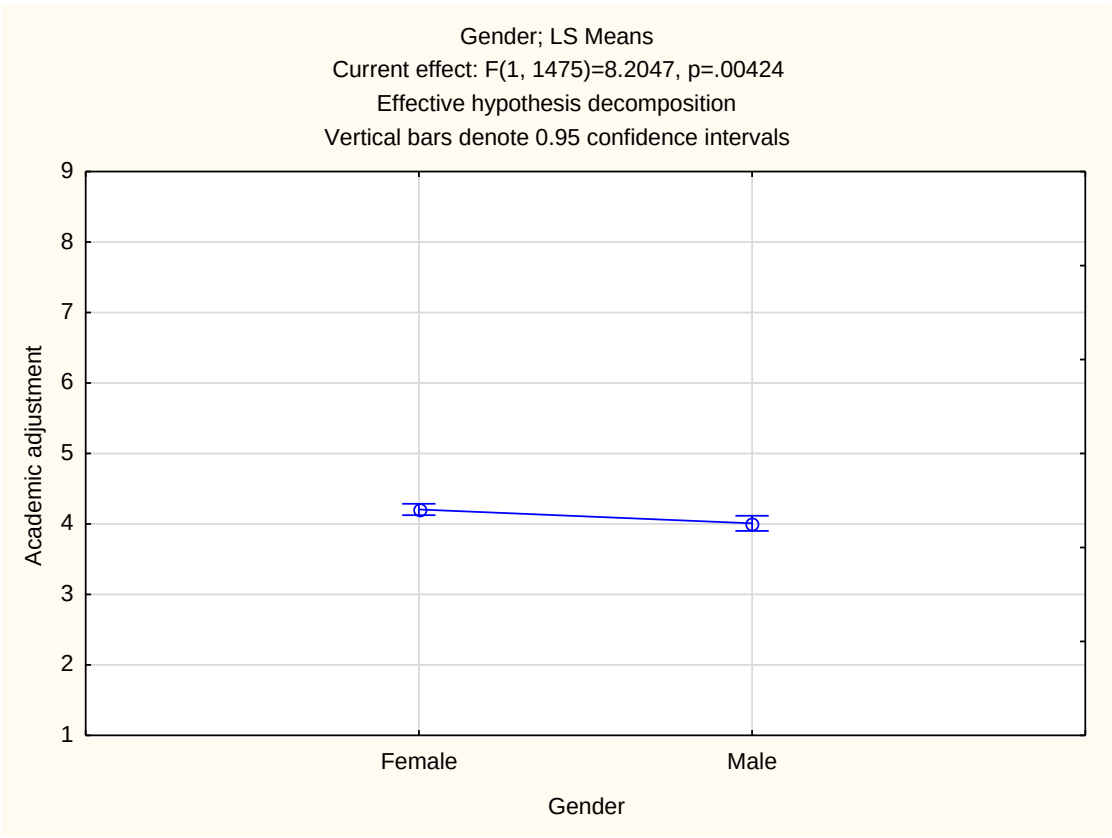
1.3.1. Univariate Tests of Significance for Academic adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Academic adjustment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.1057				
	SS	Degr. of Freedom	MS	F	p
Intercept	17477.49	1	17477.49	14296.05	0.00
participation2	11.39	1	11.39	9.31	0.00
Gender	10.03	1	10.03	8.20	0.00
time	0.02	1	0.02	0.01	0.91
participation2*Gender	0.05	1	0.05	0.04	0.83
participation2*time	1.25	1	1.25	1.02	0.31
Gender*time	0.07	1	0.07	0.05	0.82
participation2*Gender*time	0.86	1	0.86	0.71	0.40
Error	1803.25	1475	1.22		

1.3.2. Participation2; LS Means



1.3.3. Gender; LS Means



1.3.4. Descriptive Statistics (merged in resultate.stw)

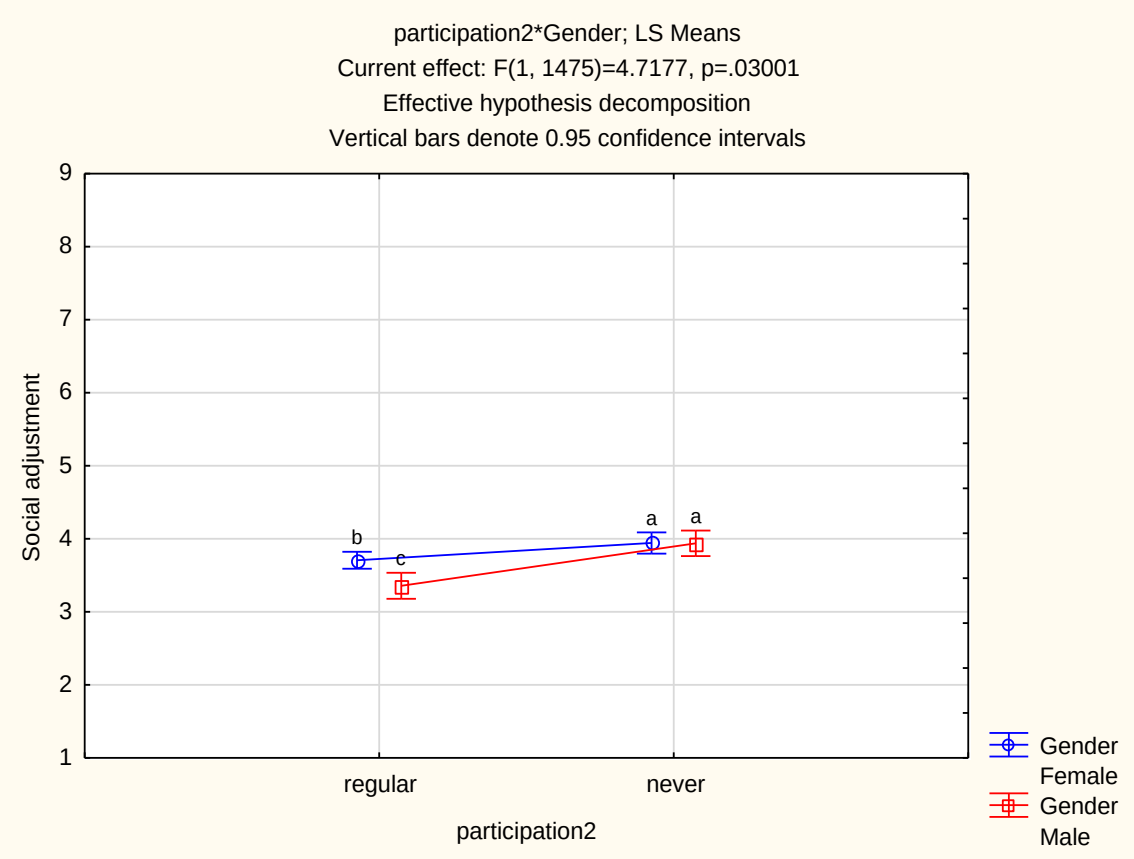
Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Academic adjustment Mean	Academic adjustment Std.Dev.
Total				1483	4.10	1.11
participation2	regular			957	4.02	1.11
participation2	never			526	4.24	1.11
Gender	Female			976	4.15	1.12
Gender	Male			507	3.99	1.09
time	1			1063	4.08	1.11
time	2			420	4.13	1.11
participation2*Gender	regular	Female		665	4.07	1.12
participation2*Gender	regular	Male		292	3.91	1.08
participation2*Gender	never	Female		311	4.33	1.11
participation2*Gender	never	Male		215	4.11	1.11
participation2*time	regular	1		745	4.00	1.10
participation2*time	regular	2		212	4.08	1.12
participation2*time	never	1		318	4.28	1.11
participation2*time	never	2		208	4.19	1.11
Gender*time	Female	1		704	4.14	1.12
Gender*time	Female	2		272	4.19	1.11
Gender*time	Male	1		359	3.98	1.09
Gender*time	Male	2		148	4.03	1.11
participation2*Gender*time	regular	Female	1	516	4.04	1.12
participation2*Gender*time	regular	Female	2	149	4.15	1.10
participation2*Gender*time	regular	Male	1	229	3.90	1.06
participation2*Gender*time	regular	Male	2	63	3.92	1.14
participation2*Gender*time	never	Female	1	188	4.39	1.09
participation2*Gender*time	never	Female	2	123	4.24	1.12
participation2*Gender*time	never	Male	1	130	4.11	1.12
participation2*Gender*time	never	Male	2	85	4.11	1.09

1.4. Social adjustment

1.4.1. Univariate Tests of Significance for Social adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Social adjustment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.2772				
	SS	Degr. of Freedom	MS	F	p
Intercept	14460.08	1	14460.08	8864.77	0.00
participation2	43.23	1	43.23	26.50	0.00
Gender	8.11	1	8.11	4.97	0.03
time	4.75	1	4.75	2.91	0.09
participation2*Gender	7.70	1	7.70	4.72	0.03
participation2*time	0.75	1	0.75	0.46	0.50
Gender*time	0.19	1	0.19	0.12	0.73
participation2*Gender*time	1.09	1	1.09	0.67	0.41
Error	2406.00	1475	1.63		

1.4.2. Participation2*Gender; LS Means



1.4.3. LSD test; variable Social adjustment (merged in resultate.stw)

Cell No.	LSD test; variable Social adjustment (merged in resultate.stw) Probabilities for Post Hoc Tests Error: Between MSE = 1.6312, df = 1475.0					
	participation2	Gender	{1} 3.7041	{2} 3.4070	{3} 3.9669	{4} 3.9544
1	regular	Female		0.00	0.00	0.01
2	regular	Male	0.00		0.00	0.00
3	never	Female	0.00	0.00		0.91
4	never	Male	0.01	0.00	0.91	

1.5. Total adjustment

1.5.1. Univariate Tests of Significance for total adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for total adjustment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.0847				
	SS	Degr. of Freedom	MS	F	p
Intercept	16303.15	1	16303.15	13856.66	0.00
participation2	24.12	1	24.12	20.50	0.00
Gender	27.29	1	27.29	23.19	0.00
time	0.85	1	0.85	0.72	0.40
participation2*Gender	0.95	1	0.95	0.81	0.37
participation2*time	1.82	1	1.82	1.55	0.21
Gender*time	0.18	1	0.18	0.15	0.70
participation2*Gender*time	1.05	1	1.05	0.90	0.34
Error	1735.42	1475	1.18		

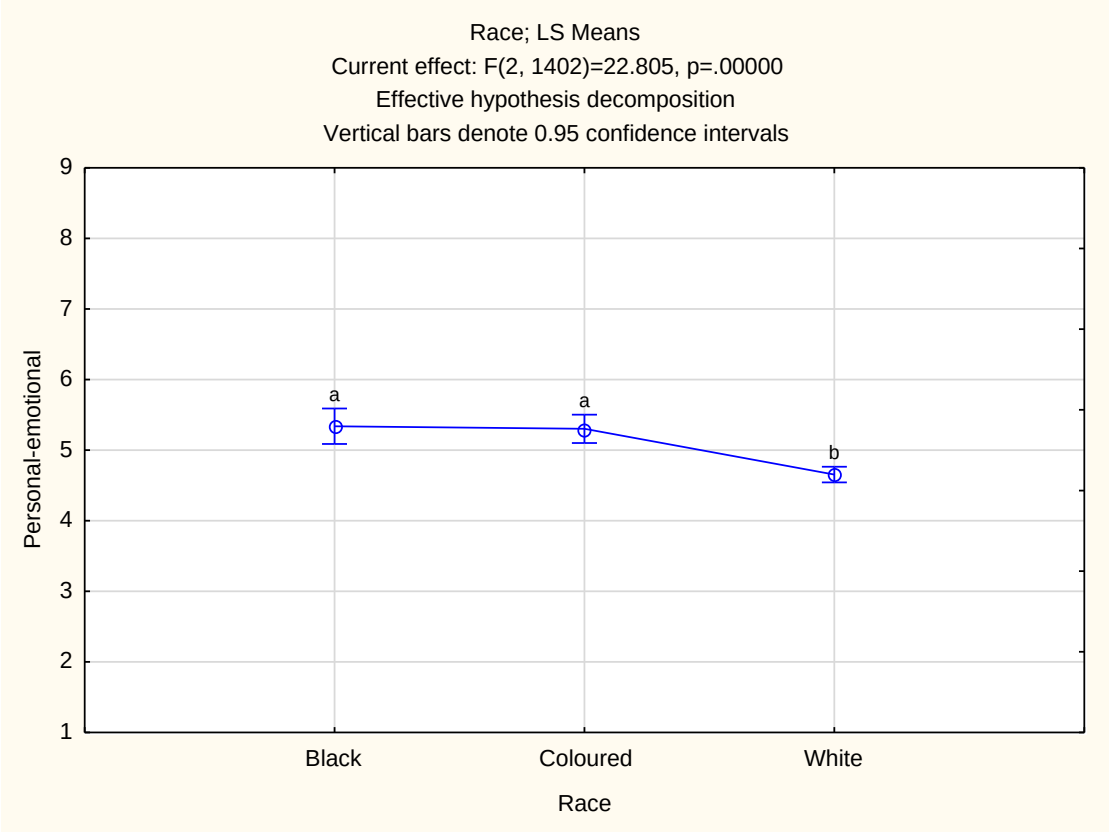
1.5.2. Participation2; LS Means

1.6. Personal-emotional

1.6.1. Univariate Tests of Significance for Personal-emotional (merged in resultate.stw)

Effect	Univariate Tests of Significance for Personal-emotional (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.5105				
	SS	Degr. of Freedom	MS	F	p
Intercept	17706.07	1	17706.07	7760.30	0.00
Race	104.07	2	52.03	22.81	0.00
participation2	4.75	1	4.75	2.08	0.15
time	0.62	1	0.62	0.27	0.60
Race*participation2	9.20	2	4.60	2.02	0.13
Race*time	3.82	2	1.91	0.84	0.43
participation2*time	2.35	1	2.35	1.03	0.31
Race*participation2*time	4.47	2	2.24	0.98	0.38
Error	3198.83	1402	2.28		

1.6.2. Race; LS Means



1.6.3. Descriptive Statistics (merged in resultate.stw)

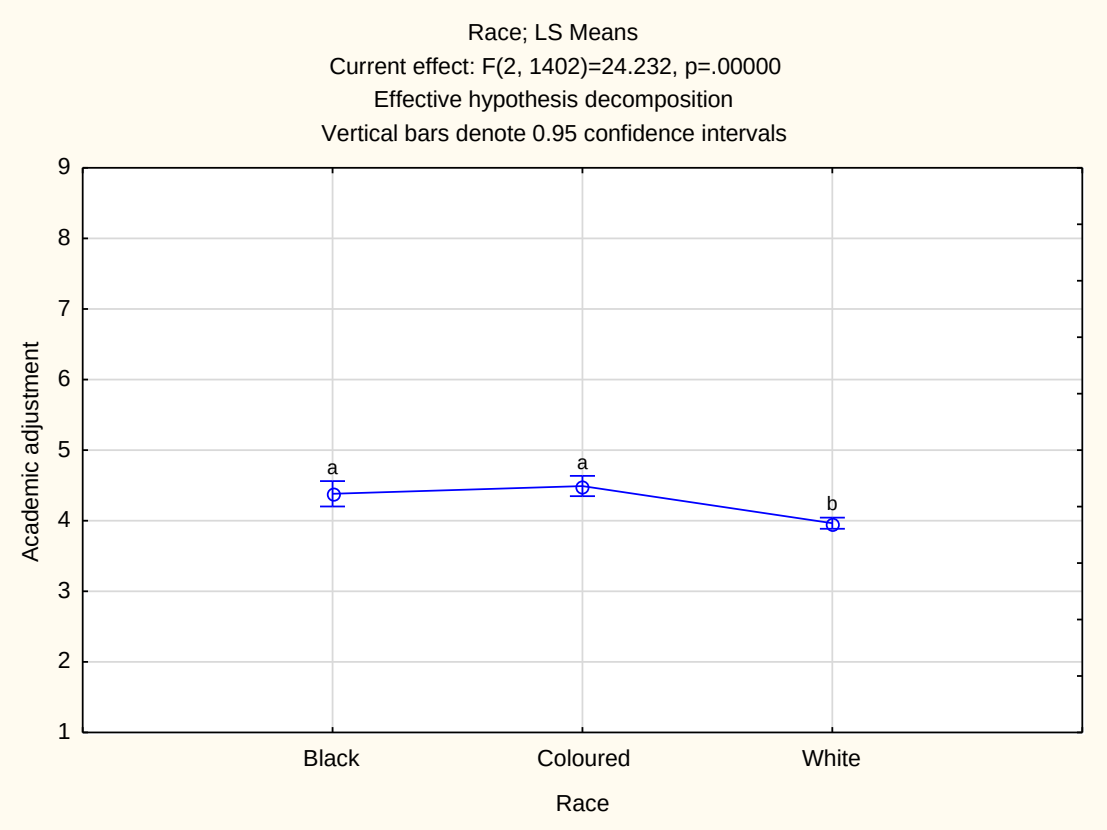
Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Personal-emotional Mean	Personal-emotional Std.Dev.
Total				1414	4.83	1.55
Race	Black			208	5.32	1.64
Race	Coloured			279	5.21	1.44
Race	White			927	4.60	1.52
participation2	regular			912	4.72	1.52
participation2	never			502	5.03	1.59
time	1			1017	4.81	1.53
time	2			397	4.88	1.61
Race*participation2	Black	regular		149	5.34	1.70
Race*participation2	Black	never		59	5.27	1.51
Race*participation2	Coloured	regular		183	5.14	1.43
Race*participation2	Coloured	never		96	5.36	1.47
Race*participation2	White	regular		580	4.42	1.42
Race*participation2	White	never		347	4.90	1.62
Race*time	Black	1		152	5.29	1.61
Race*time	Black	2		56	5.40	1.74
Race*time	Coloured	1		197	5.15	1.42
Race*time	Coloured	2		82	5.37	1.49
Race*time	White	1		668	4.60	1.50
Race*time	White	2		259	4.61	1.56
participation2*time	regular	1		709	4.68	1.49
participation2*time	regular	2		203	4.84	1.61
participation2*time	never	1		308	5.11	1.57
participation2*time	never	2		194	4.91	1.62
Race*participation2*time	Black	regular	1	111	5.34	1.65
Race*participation2*time	Black	regular	2	38	5.36	1.85
Race*participation2*time	Black	never	1	41	5.18	1.51
Race*participation2*time	Black	never	2	18	5.48	1.54
Race*participation2*time	Coloured	regular	1	141	5.03	1.38
Race*participation2*time	Coloured	regular	2	42	5.48	1.52
Race*participation2*time	Coloured	never	1	56	5.45	1.47
Race*participation2*time	Coloured	never	2	40	5.25	1.47
Race*participation2*time	White	regular	1	457	4.41	1.42
Race*participation2*time	White	regular	2	123	4.47	1.46
Race*participation2*time	White	never	1	211	5.01	1.60
Race*participation2*time	White	never	2	136	4.73	1.64

1.7. Academic adjustment

1.7.1. Univariate Tests of Significance for Academic adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Academic adjustment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.0803				
	SS	Degr. of Freedom	MS	F	p
Intercept	12475.38	1	12475.38	10689.58	0.00
Race	56.56	2	28.28	24.23	0.00
participation2	1.08	1	1.08	0.93	0.34
time	0.15	1	0.15	0.13	0.72
Race*participation2	11.11	2	5.55	4.76	0.01
Race*time	1.33	2	0.67	0.57	0.57
participation2*time	0.80	1	0.80	0.69	0.41
Race*participation2*time	0.37	2	0.19	0.16	0.85
Error	1636.22	1402	1.17		

1.7.2. Race; LS Means



1.7.3. Descriptive Statistics (merged in resultate.stw)

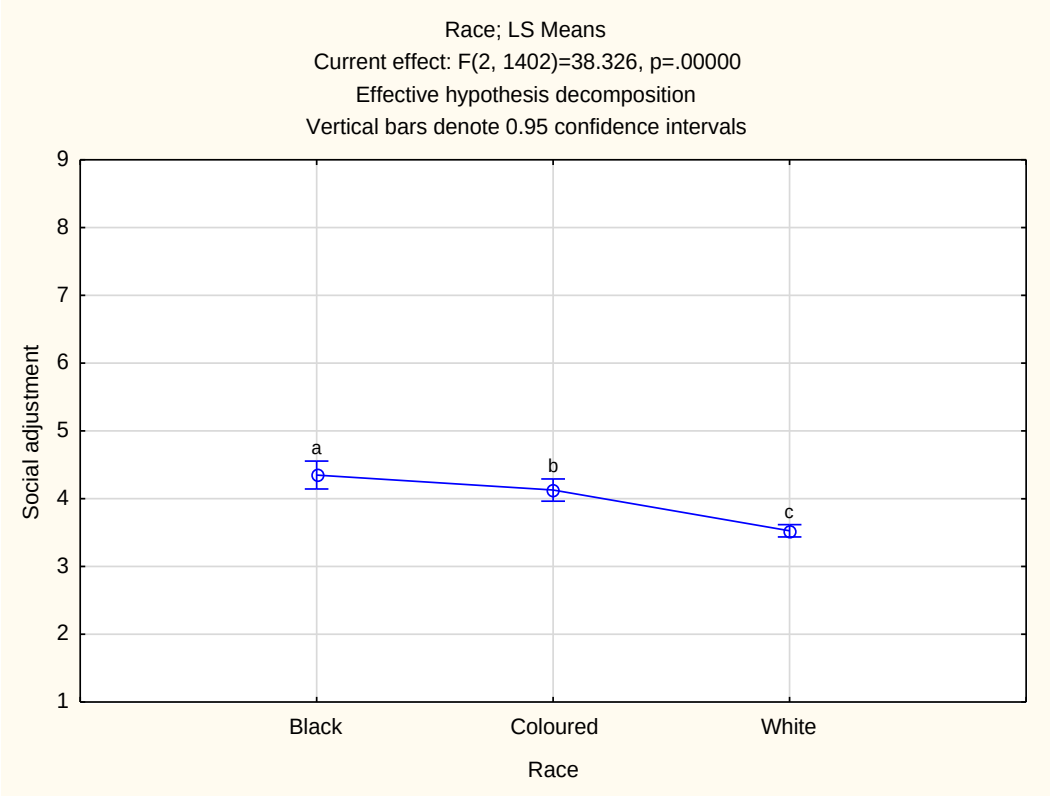
Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Academic adjustment Mean	Academic adjustment Std.Dev.
Total				1414	4.10	1.12
Race	Black			208	4.43	1.21
Race	Coloured			279	4.43	1.12
Race	White			927	3.92	1.05
participation2	regular			912	4.02	1.10
participation2	never			502	4.24	1.12
time	1			1017	4.08	1.11
time	2			397	4.14	1.12
Race*participation2	Black	regular		149	4.51	1.22
Race*participation2	Black	never		59	4.22	1.17
Race*participation2	Coloured	regular		183	4.35	1.09
Race*participation2	Coloured	never		96	4.59	1.16
Race*participation2	White	regular		580	3.79	1.01
Race*participation2	White	never		347	4.15	1.09
Race*time	Black	1		152	4.41	1.19
Race*time	Black	2		56	4.47	1.28
Race*time	Coloured	1		197	4.39	1.16
Race*time	Coloured	2		82	4.53	1.02
Race*time	White	1		668	3.92	1.05
Race*time	White	2		259	3.94	1.07
participation2*time	regular	1		709	3.99	1.10
participation2*time	regular	2		203	4.10	1.11
participation2*time	never	1		308	4.29	1.12
participation2*time	never	2		194	4.17	1.13
Race*participation2*time	Black	regular	1	111	4.49	1.18
Race*participation2*time	Black	regular	2	38	4.57	1.34
Race*participation2*time	Black	never	1	41	4.20	1.19
Race*participation2*time	Black	never	2	18	4.27	1.15
Race*participation2*time	Coloured	regular	1	141	4.31	1.13
Race*participation2*time	Coloured	regular	2	42	4.47	0.93
Race*participation2*time	Coloured	never	1	56	4.59	1.20
Race*participation2*time	Coloured	never	2	40	4.59	1.11
Race*participation2*time	White	regular	1	457	3.78	1.01
Race*participation2*time	White	regular	2	123	3.83	1.01
Race*participation2*time	White	never	1	211	4.22	1.07
Race*participation2*time	White	never	2	136	4.04	1.11

1.8. Social adjustment

1.8.1. Univariate Tests of Significance for Social adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Social adjustment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.2331				
	SS	Degr. of Freedom	MS	F	p
Intercept	10903.26	1	10903.26	7170.99	0.00
Race	116.55	2	58.27	38.33	0.00
participation2	9.69	1	9.69	6.37	0.01
time	1.31	1	1.31	0.86	0.35
Race*participation2	14.50	2	7.25	4.77	0.01
Race*time	3.09	2	1.54	1.01	0.36
participation2*time	2.58	1	2.58	1.70	0.19
Race*participation2*time	1.70	2	0.85	0.56	0.57
Error	2131.70	1402	1.52		

1.8.2. Race; LS Means



1.8.3. Descriptive Statistics (merged in resultate.stw)

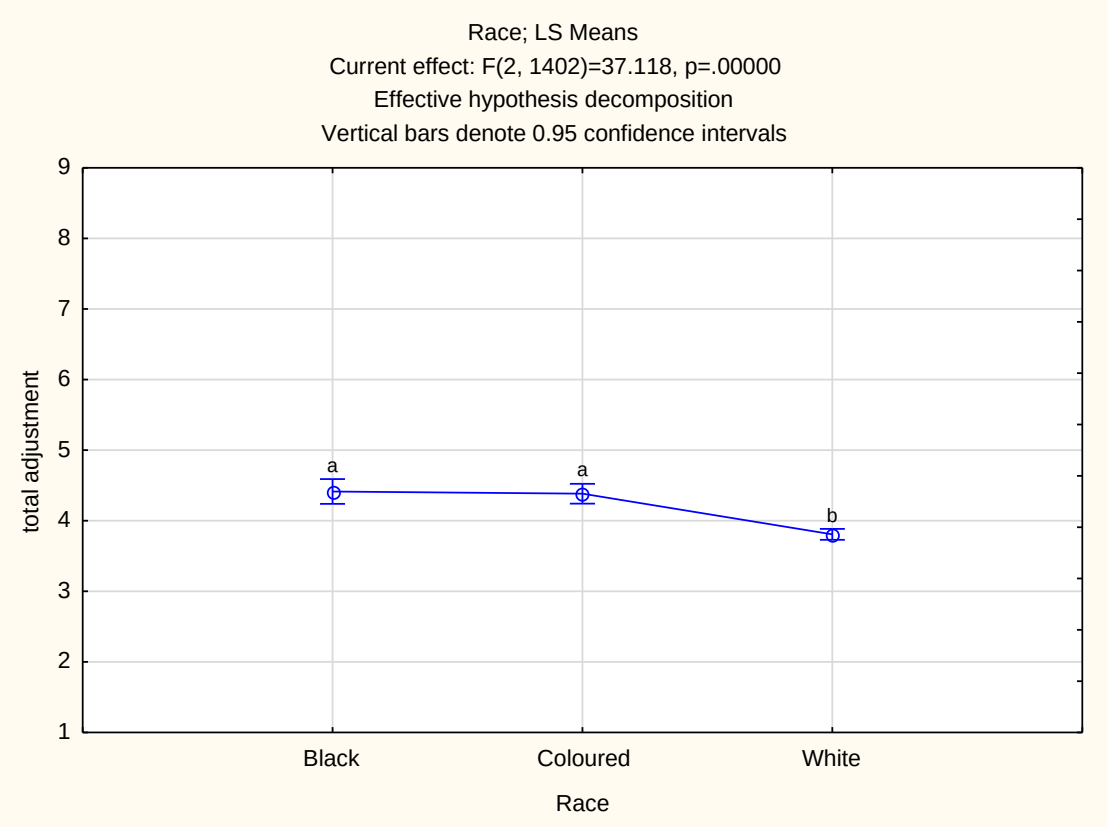
Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Social adjustment Mean	Social adjustment Std.Dev.
Total				1414	3.74	1.29
Race	Black			208	4.37	1.31
Race	Coloured			279	4.05	1.31
Race	White			927	3.51	1.22
participation2	regular			912	3.62	1.28
participation2	never			502	3.97	1.29
time	1			1017	3.76	1.29
time	2			397	3.71	1.31
Race*participation2	Black	regular		149	4.39	1.31
Race*participation2	Black	never		59	4.31	1.33
Race*participation2	Coloured	regular		183	3.91	1.29
Race*participation2	Coloured	never		96	4.33	1.30
Race*participation2	White	regular		580	3.33	1.17
Race*participation2	White	never		347	3.81	1.25
Race*time	Black	1		152	4.35	1.21
Race*time	Black	2		56	4.42	1.56
Race*time	Coloured	1		197	4.02	1.32
Race*time	Coloured	2		82	4.13	1.26
Race*time	White	1		668	3.54	1.24
Race*time	White	2		259	3.42	1.17
participation2*time	regular	1		709	3.63	1.27
participation2*time	regular	2		203	3.60	1.30
participation2*time	never	1		308	4.06	1.27
participation2*time	never	2		194	3.82	1.31
Race*participation2*time	Black	regular	1	111	4.33	1.20
Race*participation2*time	Black	regular	2	38	4.57	1.58
Race*participation2*time	Black	never	1	41	4.40	1.24
Race*participation2*time	Black	never	2	18	4.10	1.53
Race*participation2*time	Coloured	regular	1	141	3.89	1.34
Race*participation2*time	Coloured	regular	2	42	3.96	1.08
Race*participation2*time	Coloured	never	1	56	4.36	1.22
Race*participation2*time	Coloured	never	2	40	4.30	1.42
Race*participation2*time	White	regular	1	457	3.37	1.19
Race*participation2*time	White	regular	2	123	3.17	1.07
Race*participation2*time	White	never	1	211	3.92	1.26
Race*participation2*time	White	never	2	136	3.65	1.22

1.9. Total adjustment

1.9.1. Univariate Tests of Significance for total adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for total adjustment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.0536				
	SS	Degr. of Freedom	MS	F	p
Intercept	12024.57	1	12024.57	10833.10	0.00
Race	82.40	2	41.20	37.12	0.00
participation2	3.39	1	3.39	3.05	0.08
time	0.00	1	0.00	0.00	0.98
Race*participation2	13.04	2	6.52	5.87	0.00
Race*time	3.05	2	1.53	1.38	0.25
participation2*time	2.38	1	2.38	2.14	0.14
Race*participation2*time	0.06	2	0.03	0.03	0.97
Error	1556.20	1402	1.11		

1.9.2. Race; LS Means



1.9.3. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	total adjustment Mean	total adjustment Std.Dev.
Total				1414	3.98	1.10
Race	Black			208	4.44	1.17
Race	Coloured			279	4.31	1.08
Race	White			927	3.77	1.04
participation2	regular			912	3.87	1.09
participation2	never			502	4.16	1.11
time	1			1017	3.97	1.10
time	2			397	3.99	1.12
Race*participation2	Black	regular		149	4.49	1.19
Race*participation2	Black	never		59	4.30	1.12
Race*participation2	Coloured	regular		183	4.20	1.05
Race*participation2	Coloured	never		96	4.52	1.11
Race*participation2	White	regular		580	3.61	0.98
Race*participation2	White	never		347	4.04	1.08
Race*time	Black	1		152	4.41	1.10
Race*time	Black	2		56	4.51	1.34
Race*time	Coloured	1		197	4.26	1.10
Race*time	Coloured	2		82	4.43	1.02
Race*time	White	1		668	3.79	1.05
Race*time	White	2		259	3.74	1.01
participation2*time	regular	1		709	3.86	1.08
participation2*time	regular	2		203	3.94	1.12
participation2*time	never	1		308	4.23	1.10
participation2*time	never	2		194	4.05	1.11
Race*participation2*time	Black	regular	1	111	4.45	1.10
Race*participation2*time	Black	regular	2	38	4.64	1.43
Race*participation2*time	Black	never	1	41	4.32	1.13
Race*participation2*time	Black	never	2	18	4.26	1.11
Race*participation2*time	Coloured	regular	1	141	4.15	1.09
Race*participation2*time	Coloured	regular	2	42	4.36	0.91
Race*participation2*time	Coloured	never	1	56	4.53	1.10
Race*participation2*time	Coloured	never	2	40	4.49	1.14
Race*participation2*time	White	regular	1	457	3.62	1.00
Race*participation2*time	White	regular	2	123	3.57	0.91
Race*participation2*time	White	never	1	211	4.14	1.08
Race*participation2*time	White	never	2	136	3.89	1.07

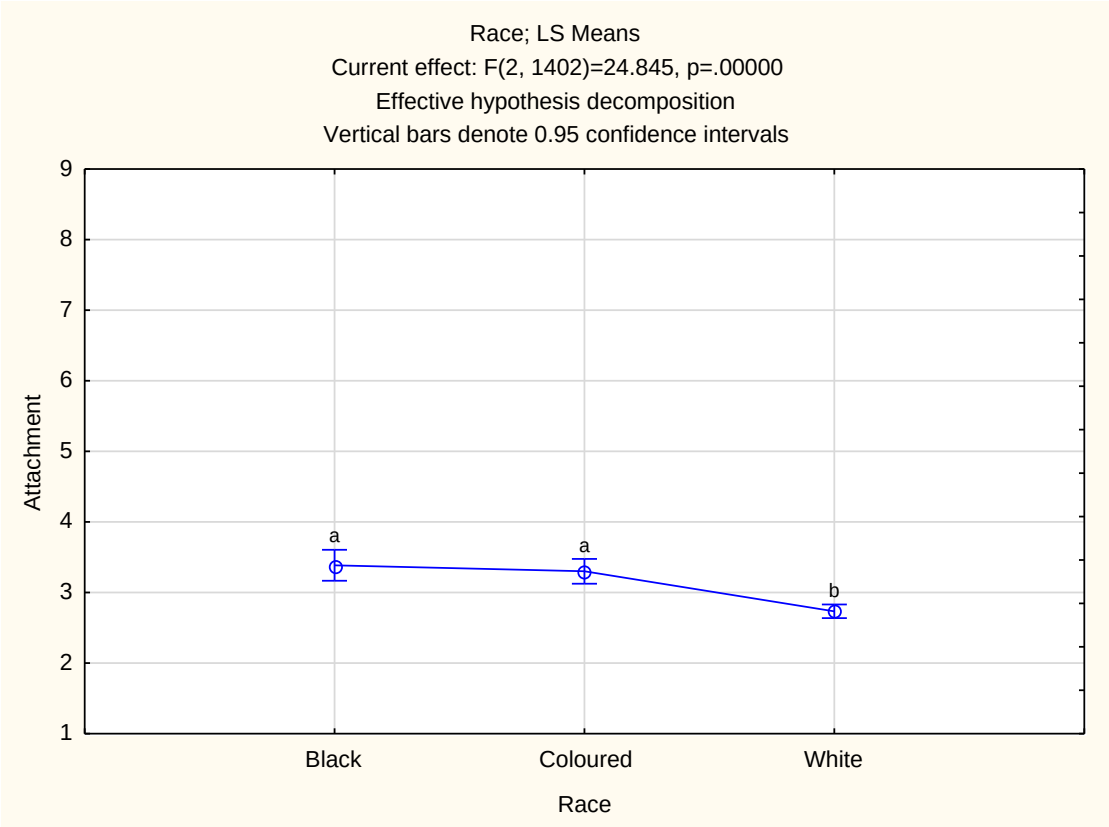
2. RACE

2.1. Attachment

2.1.1. Univariate Tests of Significance for Attachment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Attachment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.3175				
	SS	Degr. of Freedom	MS	F	p
Intercept	6716.26	1	6716.26	3868.99	0.00
Race	86.26	2	43.13	24.84	0.00
participation2	2.58	1	2.58	1.48	0.22
Time	0.07	1	0.07	0.04	0.84
Race*participation2	29.89	2	14.94	8.61	0.00
Race*time	5.99	2	3.00	1.73	0.18
participation2*time	8.70	1	8.70	5.01	0.03
Race*participation2*time	5.07	2	2.54	1.46	0.23
Error	2433.76	1402	1.74		

2.1.2. Race; LS Means



2.1.3. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Attachmen Mean	Attachment Std.Dev.
Total				1414	2.90	1.37
Race	Black			208	3.42	1.45
Race	Coloured			279	3.19	1.35
Race	White			927	2.70	1.31
participation2	regular			912	2.78	1.32
participation2	never			502	3.12	1.43
time	1			1017	2.89	1.37
time	2			397	2.94	1.36
Race*participation2	Black	regular		149	3.51	1.45
Race*participation2	Black	never		59	3.21	1.44
Race*participation2	Coloured	regular		183	3.03	1.28
Race*participation2	Coloured	never		96	3.49	1.42
Race*participation2	White	regular		580	2.52	1.21
Race*participation2	White	never		347	3.01	1.41
Race*time	Black	1		152	3.36	1.37
Race*time	Black	2		56	3.60	1.64
Race*time	Coloured	1		197	3.11	1.33
Race*time	Coloured	2		82	3.38	1.39
Race*time	White	1		668	2.72	1.35
Race*time	White	2		259	2.65	1.19
participation2*time	regular	1		709	2.75	1.31
participation2*time	regular	2		203	2.88	1.34
participation2*time	never	1		308	3.20	1.45
participation2*time	never	2		194	3.00	1.38
Race*participation2*time	Black	regular	1	111	3.36	1.31
Race*participation2*time	Black	regular	2	38	3.93	1.74
Race*participation2*time	Black	never	1	41	3.33	1.53
Race*participation2*time	Black	never	2	18	2.92	1.19
Race*participation2*time	Coloured	regular	1	141	2.96	1.29
Race*participation2*time	Coloured	regular	2	42	3.25	1.26
Race*participation2*time	Coloured	never	1	56	3.47	1.36
Race*participation2*time	Coloured	never	2	40	3.53	1.52
Race*participation2*time	White	regular	1	457	2.54	1.26
Race*participation2*time	White	regular	2	123	2.43	0.97
Race*participation2*time	White	never	1	211	3.11	1.45
Race*participation2*time	White	never	2	136	2.85	1.33

3. Living environment

3.1. Attachment

3.1.1. Univariate Tests of Significance for Attachment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Attachment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.3554				
	SS	Degr. of Freedom	MS	F	p
Intercept	4174.40	1	4174.40	2272.29	0.00
participation2	13.73	1	13.73	7.47	0.01
Living Environment	4.48	2	2.24	1.22	0.30
time	2.21	1	2.21	1.20	0.27
participation2*Living Environment	0.21	2	0.11	0.06	0.94
participation2*time	0.25	1	0.25	0.14	0.71
Living Environment*time	0.46	2	0.23	0.12	0.88
participation2*Living Environment*time	5.45	2	2.73	1.48	0.23
Error	2709.70	1475	1.84		

3.1.2. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Attachment Mean	Attachment Std.Dev.
Total				14	2.90	1.36
participation2	regular			95	2.78	1.33
participation2	never			52	3.12	1.41
Living Environment	University residence			79	2.86	1.40
Living Environment	Other accomodation in Stellenbosch			51	2.90	1.34
Living Environment	Accomodation outside of Stellenbosch			17	3.10	1.28
time	1			10	2.88	1.37
time	2			42	2.95	1.35
participation2*Living Environment	regular	University residence		65	2.79	1.37

participation2*Living Environment	regular	Other accomodation in Stellenbosch		23	2.69	1.21
participation2*Living Environment	regular	Accomodation outside of Stellenbosch		70	3.02	1.27
participation2*Living Environment	never	University residence		14	3.17	1.49
participation2*Living Environment	never	Other accomodation in Stellenbosch		27	3.08	1.42
participation2*Living Environment	never	Accomodation outside of Stellenbosch		10	3.15	1.28
participation2*time	regular	1		74	2.75	1.32
participation2*time	regular	2		21	2.88	1.34
participation2*time	never	1		31	3.19	1.44
participation2*time	never	2		20	3.01	1.35
Living Environment*time	University residence	1		56	2.81	1.39
Living Environment*time	University residence	2		23	2.97	1.41
Living Environment*time	Other accomodation in Stellenbosch	1		37	2.91	1.36
Living Environment*time	Other accomodation in Stellenbosch	2		14	2.87	1.28
Living Environment*time	Accomodation outside of Stellenbosch	1		13	3.11	1.30
Living Environment*time	Accomodation outside of Stellenbosch	2		47	3.06	1.23
participation2*Living Environment*time	regular	University residence	1	49	2.73	1.35
participation2*Living Environment*time	regular	University residence	2	16	2.96	1.43
participation2*Living Environment*time	regular	Other accomodation in Stellenbosch	1	19	2.70	1.26
participation2*Living Environment*time	regular	Other accomodation in Stellenbosch	2	45	2.64	0.99
participation2*Living Environment*time	regular	Accomodation outside of Stellenbosch	1	64	3.06	1.28
participation2*Living Environment*time	regular	Accomodation outside of Stellenbosch	2	6	2.62	1.23
participation2*Living Environment*time	never	University residence	1	72	3.35	1.57
participation2*Living Environment*time	never	University residence	2	72	2.99	1.38
participation2*Living Environment*time	never	Other accomodation in Stellenbosch	1	18	3.13	1.43
participation2*Living Environment*time	never	Other accomodation in Stellenbosch	2	96	2.98	1.39
participation2*Living Environment*time	never	Accomodation outside of Stellenbosch	1	67	3.17	1.33

participation2*Living Environment*time	never	Accomodation outside of Stellenbosch	2	41	3.12	1.23

3.2. Personal-emotional

3.2.1. Univariate Tests of Significance for Personal-emotional (merged in resultate.stw)

Effect	Univariate Tests of Significance for Personal-emotional (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.5459				
	SS	Degr. of Freedom	MS	F	p
Intercept	11630.45	1	11630.45	4866.67	0.00
participation2	3.74	1	3.74	1.56	0.21
Living Environment	4.50	2	2.25	0.94	0.39
time	0.19	1	0.19	0.08	0.78
participation2*Living Environment	0.40	2	0.20	0.08	0.92
participation2*time	3.83	1	3.83	1.60	0.21
Living Environment*time	1.39	2	0.69	0.29	0.75
participation2*Living Environment*time	6.14	2	3.07	1.28	0.28
Error	3524.98	1475	2.39		

3.2.2. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Personal-emotional Mean	Personal-emotional Std.Dev.
Total				1487	4.83	1.55
participation2	regular			959	4.72	1.53
participation2	never			528	5.03	1.57
Living Environment	University residence			798	4.72	1.58
Living Environment	Other accomodation in Stellenbosch			511	4.98	1.51
Living Environment	Accomodation outside of Stellenbosch			178	4.94	1.48
time	1			1064	4.81	1.53
time	2			423	4.90	1.61
participation2*Living Environment	regular	University residence		654	4.67	1.60

participation2*Living Environment	regular	Other accomodation in Stellenbosch		235	4.86	1.41
participation2*Living Environment	regular	Accomodation outside of Stellenbosch		70	4.76	1.22
participation2*Living Environment	never	University residence		144	4.92	1.52
participation2*Living Environment	never	Other accomodation in Stellenbosch		276	5.09	1.59
participation2*Living Environment	never	Accomodation outside of Stellenbosch		108	5.06	1.62
participation2*time	regular	1		745	4.68	1.50
participation2*time	regular	2		214	4.86	1.64
participation2*time	never	1		319	5.09	1.57
participation2*time	never	2		209	4.95	1.59
Living Environment*time	University residence	1		563	4.67	1.56
Living Environment*time	University residence	2		235	4.82	1.64
Living Environment*time	Other accomodation in Stellenbosch	1		370	4.98	1.47
Living Environment*time	Other accomodation in Stellenbosch	2		141	4.98	1.63
Living Environment*time	Accomodation outside of Stellenbosch	1		131	4.89	1.51
Living Environment*time	Accomodation outside of Stellenbosch	2		47	5.07	1.42
participation2*Living Environment*time	regular	University residence	1	491	4.61	1.56
participation2*Living Environment*time	regular	University residence	2	163	4.87	1.69
participation2*Living Environment*time	regular	Other accomodation in Stellenbosch	1	190	4.88	1.39
participation2*Living Environment*time	regular	Other accomodation in Stellenbosch	2	45	4.80	1.53
participation2*Living Environment*time	regular	Accomodation outside of Stellenbosch	1	64	4.72	1.24
participation2*Living Environment*time	regular	Accomodation outside of Stellenbosch	2	6	5.19	1.01
participation2*Living Environment*time	never	University residence	1	72	5.11	1.50
participation2*Living Environment*time	never	University residence	2	72	4.73	1.52
participation2*Living Environment*time	never	Other accomodation in Stellenbosch	1	180	5.10	1.54
participation2*Living Environment*time	never	Other accomodation in Stellenbosch	2	96	5.07	1.68

participation2*Living Environment*time	never	Accomodation outside of Stellenbosch	1	67	5.06	1.72
participation2*Living Environment*time	never	Accomodation outside of Stellenbosch	2	41	5.06	1.48

3.3. Academic adjustment

3.3.1. Univariate Tests of Significance for Academic adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Academic adjustment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.1105				
	SS	Degr. of Freedom	MS	F	p
Intercept	8200.13	1	8200.13	6649.31	0.00
participation2	3.41	1	3.41	2.76	0.10
Living Environment	0.53	2	0.26	0.21	0.81
time	0.10	1	0.10	0.08	0.78
participation2*Living Environment	1.13	2	0.57	0.46	0.63
participation2*time	0.46	1	0.46	0.38	0.54
Living Environment*time	0.08	2	0.04	0.03	0.97
participation2*Living Environment*time	1.10	2	0.55	0.45	0.64
Error	1819.02	1475	1.23		

3.3.2. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Academic adjustment Mean	Academic adjustment Std.Dev.
Total				1487	4.10	1.11
participation2	regular			959	4.02	1.11
participation2	never			528	4.25	1.11
Living Environment	University residence			798	4.07	1.16
Living Environment	Other accomodation in Stellenbosch			511	4.14	1.05
Living Environment	Accomodation outside of Stellenbosch			178	4.14	1.07
time	1			1064	4.08	1.11
time	2			423	4.14	1.11

participation2*Living Environment	regular	University residence		654	4.02	1.16
participation2*Living Environment	regular	Other accomodation in Stellenbosch		235	3.98	0.98
participation2*Living Environment	regular	Accomodation outside of Stellenbosch		70	4.14	1.06
participation2*Living Environment	never	University residence		144	4.28	1.18
participation2*Living Environment	never	Other accomodation in Stellenbosch		276	4.27	1.09
participation2*Living Environment	never	Accomodation outside of Stellenbosch		108	4.14	1.08
participation2*time	regular	1		745	4.00	1.10
participation2*time	regular	2		214	4.10	1.12
participation2*time	never	1		319	4.28	1.11
participation2*time	never	2		209	4.19	1.11
Living Environment*time	University residence	1		563	4.03	1.16
Living Environment*time	University residence	2		235	4.15	1.18
Living Environment*time	Other accomodation in Stellenbosch	1		370	4.14	1.05
Living Environment*time	Other accomodation in Stellenbosch	2		141	4.13	1.03
Living Environment*time	Accomodation outside of Stellenbosch	1		131	4.14	1.08
Living Environment*time	Accomodation outside of Stellenbosch	2		47	4.14	1.05
participation2*Living Environment*time	regular	University residence	1	491	3.98	1.15
participation2*Living Environment*time	regular	University residence	2	163	4.13	1.17
participation2*Living Environment*time	regular	Other accomodation in Stellenbosch	1	190	3.99	0.97
participation2*Living Environment*time	regular	Other accomodation in Stellenbosch	2	45	3.96	1.00
participation2*Living Environment*time	regular	Accomodation outside of Stellenbosch	1	64	4.14	1.09
participation2*Living Environment*time	regular	Accomodation outside of Stellenbosch	2	6	4.13	0.67
participation2*Living Environment*time	never	University residence	1	72	4.37	1.15
participation2*Living Environment*time	never	University residence	2	72	4.19	1.21
participation2*Living Environment*time	never	Other accomodation in Stellenbosch	1	180	4.30	1.12

participation2*Living Environment*time	never	Other accomodation in Stellenbosch	2	96	4.21	1.03
participation2*Living Environment*time	never	Accomodation outside of Stellenbosch	1	67	4.14	1.07
participation2*Living Environment*time	never	Accomodation outside of Stellenbosch	2	41	4.14	1.10

3.4. Social adjustment

3.4.1. Univariate Tests of Significance for Social adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Social adjustment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.2823				
	SS	Degr. of Freedom	MS	F	p
Intercept	6760.75	1	6760.75	4111.60	0.00
participation2	17.80	1	17.80	10.82	0.00
Living Environment	0.16	2	0.08	0.05	0.95
time	5.06	1	5.06	3.08	0.08
participation2*Living Environment	2.57	2	1.28	0.78	0.46
participation2*time	0.12	1	0.12	0.07	0.79
Living Environment*time	1.96	2	0.98	0.60	0.55
participation2*Living Environment*time	2.74	2	1.37	0.83	0.43
Error	2425.36	1475	1.64		

3.4.2. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Social adjustment Mean	Social adjustment Std.Dev.
Total				1487	3.74	1.29
participation2	regular			959	3.62	1.28
participation2	never			528	3.97	1.28
Living Environment	University residence			798	3.66	1.34
Living Environment	Other accomodation in Stellenbosch			511	3.80	1.25
Living Environment	Accomodation outside of Stellenbosch			178	3.92	1.16
time	1			1064	3.75	1.29

time	2			423	3.72	1.31
participation2*Living Environment	regular	University residence		654	3.62	1.34
participation2*Living Environment	regular	Other accomodation in Stellenbosch		235	3.57	1.19
participation2*Living Environment	regular	Accomodation outside of Stellenbosch		70	3.71	1.08
participation2*Living Environment	never	University residence		144	3.86	1.35
participation2*Living Environment	never	Other accomodation in Stellenbosch		276	3.99	1.27
participation2*Living Environment	never	Accomodation outside of Stellenbosch		108	4.06	1.20
participation2*time	regular	1		745	3.62	1.27
participation2*time	regular	2		214	3.60	1.32
participation2*time	never	1		319	4.04	1.27
participation2*time	never	2		209	3.85	1.29
Living Environment*time	University residence	1		563	3.67	1.33
Living Environment*time	University residence	2		235	3.64	1.38
Living Environment*time	Other accomodation in Stellenbosch	1		370	3.79	1.25
Living Environment*time	Other accomodation in Stellenbosch	2		141	3.82	1.25
Living Environment*time	Accomodation outside of Stellenbosch	1		131	3.97	1.19
Living Environment*time	Accomodation outside of Stellenbosch	2		47	3.79	1.09
participation2*Living Environment*time	regular	University residence	1	491	3.62	1.33
participation2*Living Environment*time	regular	University residence	2	163	3.63	1.37
participation2*Living Environment*time	regular	Other accomodation in Stellenbosch	1	190	3.59	1.20
participation2*Living Environment*time	regular	Other accomodation in Stellenbosch	2	45	3.51	1.15
participation2*Living Environment*time	regular	Accomodation outside of Stellenbosch	1	64	3.75	1.09
participation2*Living Environment*time	regular	Accomodation outside of Stellenbosch	2	6	3.30	0.87
participation2*Living Environment*time	never	University residence	1	72	4.04	1.29
participation2*Living Environment*time	never	University residence	2	72	3.67	1.39
participation2*Living Environment*time	never	Other accomodation in Stellenbosch	1	180	4.00	1.27

participation2*Living Environment*time	never	Other accomodation in Stellenbosch	2	96	3.97	1.28
participation2*Living Environment*time	never	Accomodation outside of Stellenbosch	1	67	4.18	1.24
participation2*Living Environment*time	never	Accomodation outside of Stellenbosch	2	41	3.86	1.11

3.5. Total adjustment

3.5.1. Univariate Tests of Significance for total adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for total adjustment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.0954				
	SS	Degr. of Freedom	MS	F	p
Intercept	7740.66	1	7740.66	6450.55	0.00
participation2	7.52	1	7.52	6.27	0.01
Living Environment	0.09	2	0.04	0.04	0.96
time	0.79	1	0.79	0.65	0.42
participation2*Living Environment	0.68	2	0.34	0.28	0.75
participation2*time	0.62	1	0.62	0.52	0.47
Living Environment*time	0.00	2	0.00	0.00	1.00
participation2*Living Environment*time	2.87	2	1.43	1.20	0.30
Error	1770.00	1475	1.20		

3.5.2. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	total adjustment Mean	total adjustment Std.Dev.
Total				14	3.98	1.10
participation2	regular			95	3.88	1.09
participation2	never			52	4.16	1.10

Living Environment	University residence			79	3.92	1.15
Living Environment	Other accomodation in Stellenbosch			51	4.04	1.04
Living Environment	Accomodation outside of Stellenbosch			17	4.09	1.05
time	1			10	3.97	1.10
time	2			42	4.00	1.11
participation2*Living Environment	regular	University residence		65	3.87	1.15
participation2*Living Environment	regular	Other accomodation in Stellenbosch		23	3.87	0.96
participation2*Living Environment	regular	Accomodation outside of Stellenbosch		70	3.98	0.97
participation2*Living Environment	never	University residence		14	4.13	1.11
participation2*Living Environment	never	Other accomodation in Stellenbosch		27	4.18	1.09
participation2*Living Environment	never	Accomodation outside of Stellenbosch		10	4.15	1.09
participation2*time	regular	1		74	3.86	1.08
participation2*time	regular	2		21	3.94	1.13
participation2*time	never	1		31	4.22	1.10
participation2*time	never	2		20	4.07	1.09
Living Environment*time	University residence	1		56	3.89	1.13
Living Environment*time	University residence	2		23	3.98	1.18
Living Environment*time	Other accomodation in Stellenbosch	1		37	4.04	1.05
Living Environment*time	Other accomodation in Stellenbosch	2		14	4.03	1.02
Living Environment*time	Accomodation outside of Stellenbosch	1		13	4.09	1.06
Living Environment*time	Accomodation outside of Stellenbosch	2		47	4.08	1.00
participation2*Living Environment*time	regular	University residence	1	49	3.83	1.13
participation2*Living Environment*time	regular	University residence	2	16	3.98	1.20
participation2*Living Environment*time	regular	Other accomodation in Stellenbosch	1	19	3.88	0.97
participation2*Living Environment*time	regular	Other accomodation in Stellenbosch	2	45	3.80	0.90
participation2*Living Environment*time	regular	Accomodation outside of Stellenbosch	1	64	3.99	1.00

participation2*Living Environment*time	regular	Accomodation outside of Stellenbosch	2	6	3.90	0.67
participation2*Living Environment*time	never	University residence	1	72	4.28	1.07
participation2*Living Environment*time	never	University residence	2	72	3.97	1.14
participation2*Living Environment*time	never	Other accomodation in Stellenbosch	1	18	4.21	1.11
participation2*Living Environment*time	never	Other accomodation in Stellenbosch	2	96	4.13	1.07
participation2*Living Environment*time	never	Accomodation outside of Stellenbosch	1	67	4.18	1.12
participation2*Living Environment*time	never	Accomodation outside of Stellenbosch	2	41	4.11	1.04

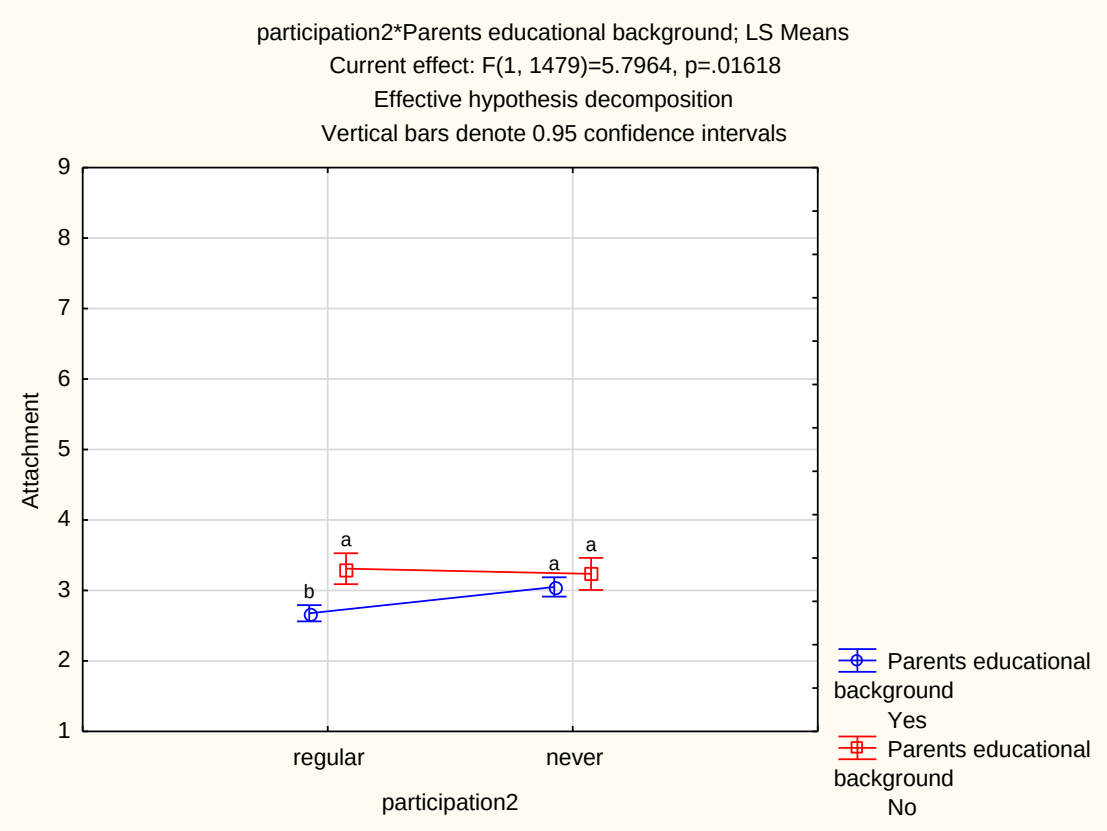
4. Parents educational background

4.1. Attachment

4.1.1. Univariate Tests of Significance for Attachment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Attachment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.3439				
	SS	Degr. of Freedom	MS	F	p
Intercept	7897.79	1	7897.79	4372.96	0.00
participation2	4.68	1	4.68	2.59	0.11
Parents educational background	35.06	1	35.06	19.41	0.00
time	0.65	1	0.65	0.36	0.55
participation2*Parents educational background	10.47	1	10.47	5.80	0.02
participation2*time	9.20	1	9.20	5.09	0.02
Parents educational background*time	3.09	1	3.09	1.71	0.19
participation2*Parents educational background*time	1.85	1	1.85	1.02	0.31
Error	2671.15	1479	1.81		

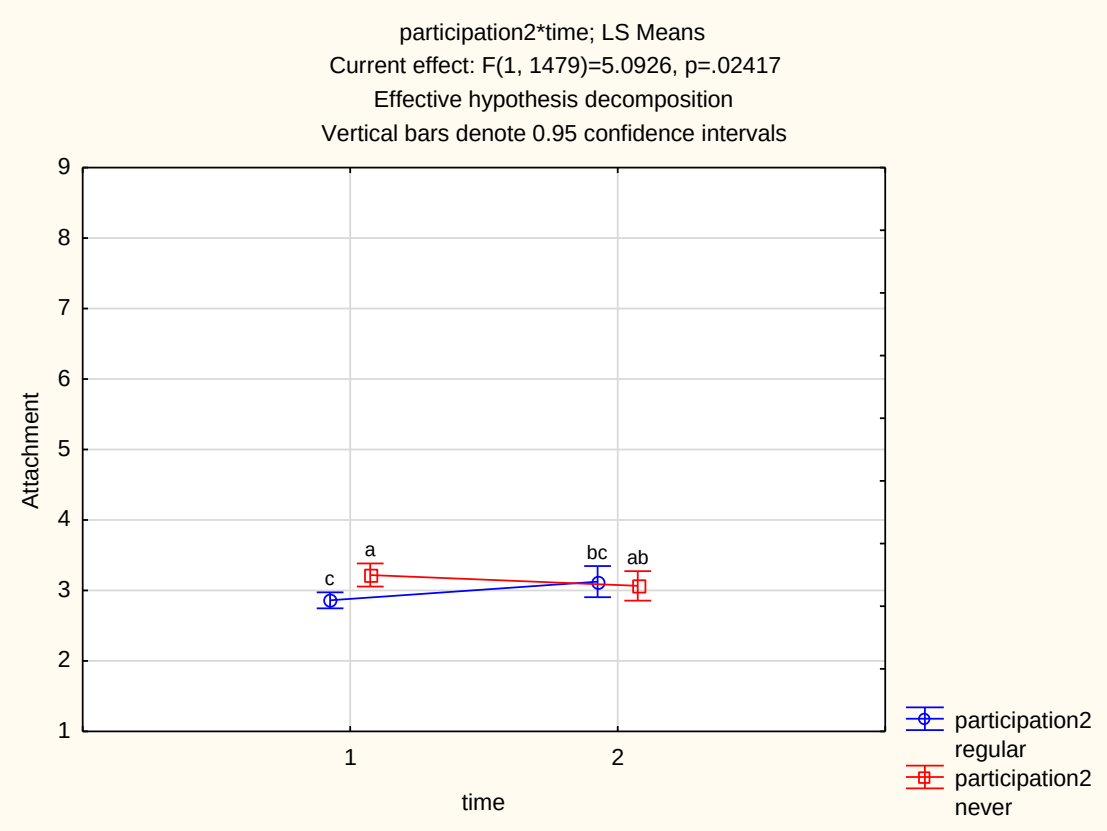
4.1.2. Participation2*Parents educational background; LS Means



4.1.3. LSD test; variable Attachment (merged in resultate.stw)

Cell No.	LSD test; variable Attachment (merged in resultate.stw) Probabilities for Post Hoc Tests Error: Between MSE = 1.8061, df = 1479.0					
	participation2	Parents educational background	{1} 2.6638	{2} 3.1662	{3} 3.0672	{4} 3.2517
1	regular	Yes		0.00	0.00	0.00
2	regular	No	0.00		0.38	0.55
3	never	Yes	0.00	0.38		0.16
4	never	No	0.00	0.55	0.16	

4.1.4. participation2*time; LS Means



4.1.5. LSD test; variable Attachment (merged in resultate.stw)

Cell No.	participation2	time	{1} 2.7519	{2} 2.8804	{3} 3.1852	{4} 3.0134
	LSD test; variable Attachment (merged in resultate.stw) Probabilities for Post Hoc Tests Error: Between MSE = 1.8061, df = 1479.0					
1	regular	1		0.22	0.00	0.01
2	regular	2	0.22		0.01	0.31
3	never	1	0.00	0.01		0.15
4	never	2	0.01	0.31	0.15	

4.1.6. Descriptive Statistics (merged in resultate.stw)

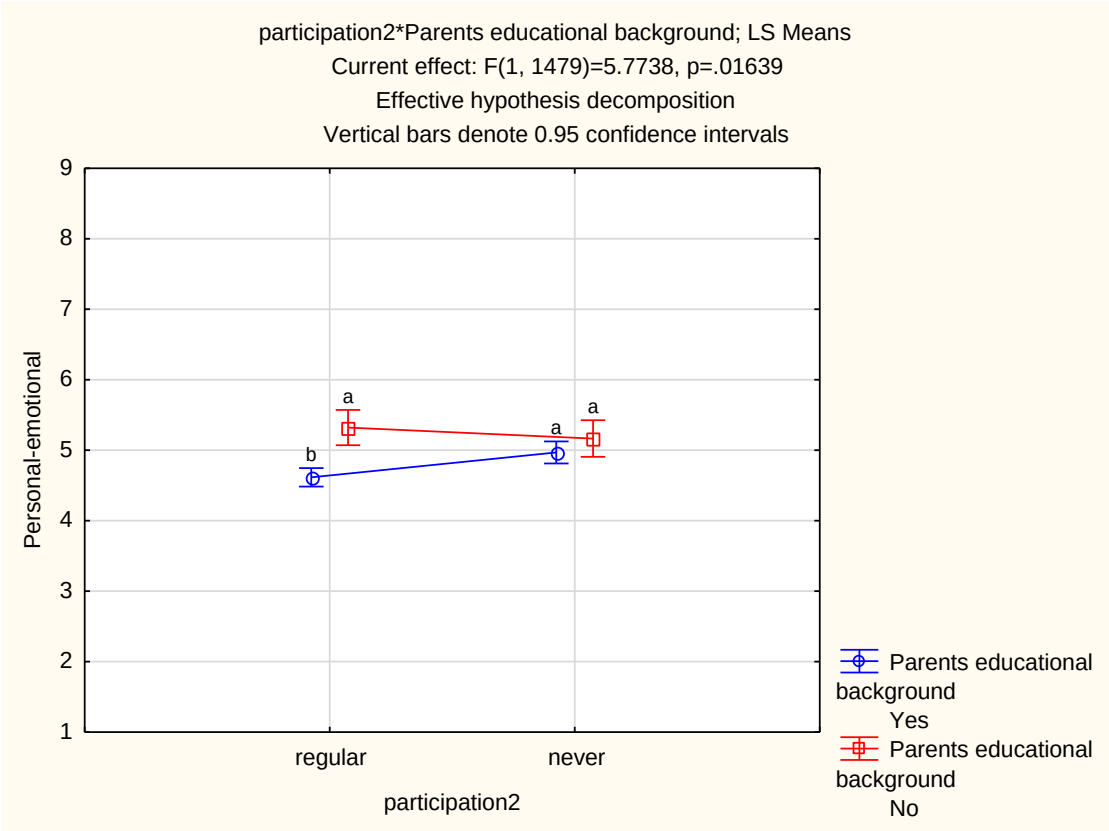
Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Attachment Mean	Attachment Std.Dev.
Total				148	2.90	1.36
participation2	regular			959	2.78	1.33
participation2	never			528	3.12	1.41
Parents educational background	Yes			112	2.80	1.35
Parents educational background	No			366	3.20	1.37
time	1			106	2.88	1.37
time	2			423	2.95	1.35
participation2*Parents educational background	regular	Yes		736	2.66	1.29
participation2*Parents educational background	regular	No		223	3.17	1.38
participation2*Parents educational background	never	Yes		385	3.07	1.43
participation2*Parents educational background	never	No		143	3.25	1.35
participation2*time	regular	1		745	2.75	1.32
participation2*time	regular	2		214	2.88	1.34
participation2*time	never	1		319	3.19	1.44
participation2*time	never	2		209	3.01	1.35
Parents educational background*time	Yes	1		796	2.79	1.37
Parents educational background*time	Yes	2		325	2.83	1.31
Parents educational background*time	No	1		268	3.15	1.36
Parents educational background*time	No	2		98	3.35	1.39
participation2*Parents educational background*time	regular	Yes	1	567	2.65	1.30
participation2*Parents educational background*time	regular	Yes	2	169	2.70	1.25
participation2*Parents educational background*time	regular	No	1	178	3.07	1.33
participation2*Parents educational background*time	regular	No	2	45	3.55	1.50
participation2*Parents educational background*time	never	Yes	1	229	3.14	1.46
participation2*Parents educational background*time	never	Yes	2	156	2.96	1.37
participation2*Parents educational background*time	never	No	1	90	3.30	1.39
participation2*Parents educational background*time	never	No	2	53	3.17	1.28

4.2. Personal-emotional

4.2.1. Univariate Tests of Significance for Personal-emotional (merged in resultate.stw)

Effect	Univariate Tests of Significance for Personal-emotional (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.5295				
	SS	Degr. of Freedom	MS	F	p
Intercept	21129.16	1	21129.16	9031.66	0.00
participation2	2.05	1	2.05	0.87	0.35
Parents educational background	42.71	1	42.71	18.26	0.00
time	1.39	1	1.39	0.59	0.44
participation2*Parents educational background	13.51	1	13.51	5.77	0.02
participation2*time	4.89	1	4.89	2.09	0.15
Parents educational background*time	2.35	1	2.35	1.00	0.32
participation2*Parents educational background*time	0.34	1	0.34	0.15	0.70
Error	3460.06	1479	2.34		

4.2.2. participation2*Parents educational background; LS Means



4.2.3. LSD test; variable Personal-emotional (merged in resultate.stw)

Cell No.	LSD test; variable Personal-emotional (merged in resultate.stw) Probabilities for Post Hoc Tests Error: Between MSE = 2.3395, df = 1479.0					
	participation2	Parents educational background	{1} 4.5707	{2} 5.2320	{3} 4.9894	{4} 5.1566
1	regular	Yes		0.00	0.00	0.00
2	regular	No	0.00		0.06	0.65
3	never	Yes	0.00	0.06		0.26
4	never	No	0.00	0.65	0.26	

4.2.4. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Personal-emotional Mean	Personal-emotional Std.Dev.
Total				148	4.83	1.55
participation2	regular			959	4.72	1.53
participation2	never			528	5.03	1.57
Parents educational background	Yes			112	4.71	1.53
Parents educational background	No			366	5.20	1.57
time	1			106	4.81	1.53
time	2			423	4.90	1.61
participation2*Parents educational background	regular	Yes		736	4.57	1.49
participation2*Parents educational background	regular	No		223	5.23	1.55
participation2*Parents educational background	never	Yes		385	4.99	1.56
participation2*Parents educational background	never	No		143	5.16	1.61
participation2*time	regular	1		745	4.68	1.50
participation2*time	regular	2		214	4.86	1.64
participation2*time	never	1		319	5.09	1.57
participation2*time	never	2		209	4.95	1.59
Parents educational background*time	Yes	1		796	4.69	1.49
Parents educational background*time	Yes	2		325	4.78	1.61
Parents educational background*time	No	1		268	5.16	1.58
Parents educational background*time	No	2		98	5.33	1.54
participation2*Parents educational background*time	regular	Yes	1	567	4.53	1.46
participation2*Parents educational background*time	regular	Yes	2	169	4.70	1.60

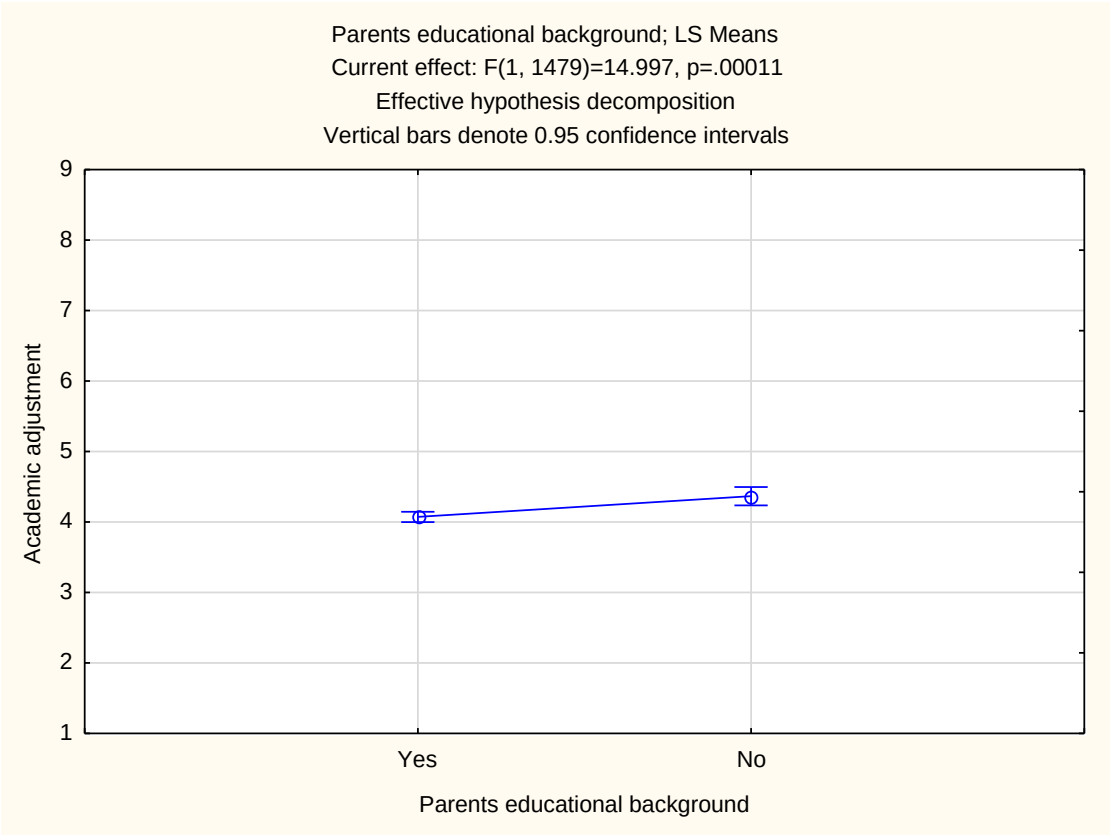
participation2*Parents educational background*time	regular	No	1	178	5.17	1.53
participation2*Parents educational background*time	regular	No	2	45	5.47	1.62
participation2*Parents educational background*time	never	Yes	1	229	5.08	1.52
participation2*Parents educational background*time	never	Yes	2	156	4.86	1.62
participation2*Parents educational background*time	never	No	1	90	5.13	1.69
participation2*Parents educational background*time	never	No	2	53	5.20	1.46

4.3. Academic adjustment

4.3.1. Univariate Tests of Significance for Academic adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Academic adjustment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.1019				
	SS	Degr. of Freedom	MS	F	p
Intercept	14939.14	1	14939.14	12304.74	0.00
participation2	2.47	1	2.47	2.04	0.15
Parents educational background	18.21	1	18.21	15.00	0.00
time	0.25	1	0.25	0.21	0.65
participation2*Parents educational background	3.52	1	3.52	2.90	0.09
participation2*time	2.93	1	2.93	2.41	0.12
Parents educational background*time	0.41	1	0.41	0.34	0.56
participation2*Parents educational background*time	0.29	1	0.29	0.24	0.63
Error	1795.65	1479	1.21		

4.3.2. Parents educational background; LS Means



4.3.3. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Academic adjustment Mean	Academic adjustment Std.Dev.
Total				148	4.10	1.11
participation2	regular			959	4.02	1.11
participation2	never			528	4.25	1.11
Parents educational background	Yes			112	4.03	1.10
Parents educational background	No			366	4.33	1.11
time	1			106	4.08	1.11
time	2			423	4.14	1.11
participation2*Parents educational background	regular	Yes		736	3.93	1.09
participation2*Parents educational background	regular	No		223	4.31	1.12
participation2*Parents educational background	never	Yes		385	4.20	1.11
participation2*Parents educational background	never	No		143	4.37	1.11
participation2*time	regular	1		745	4.00	1.10
participation2*time	regular	2		214	4.10	1.12

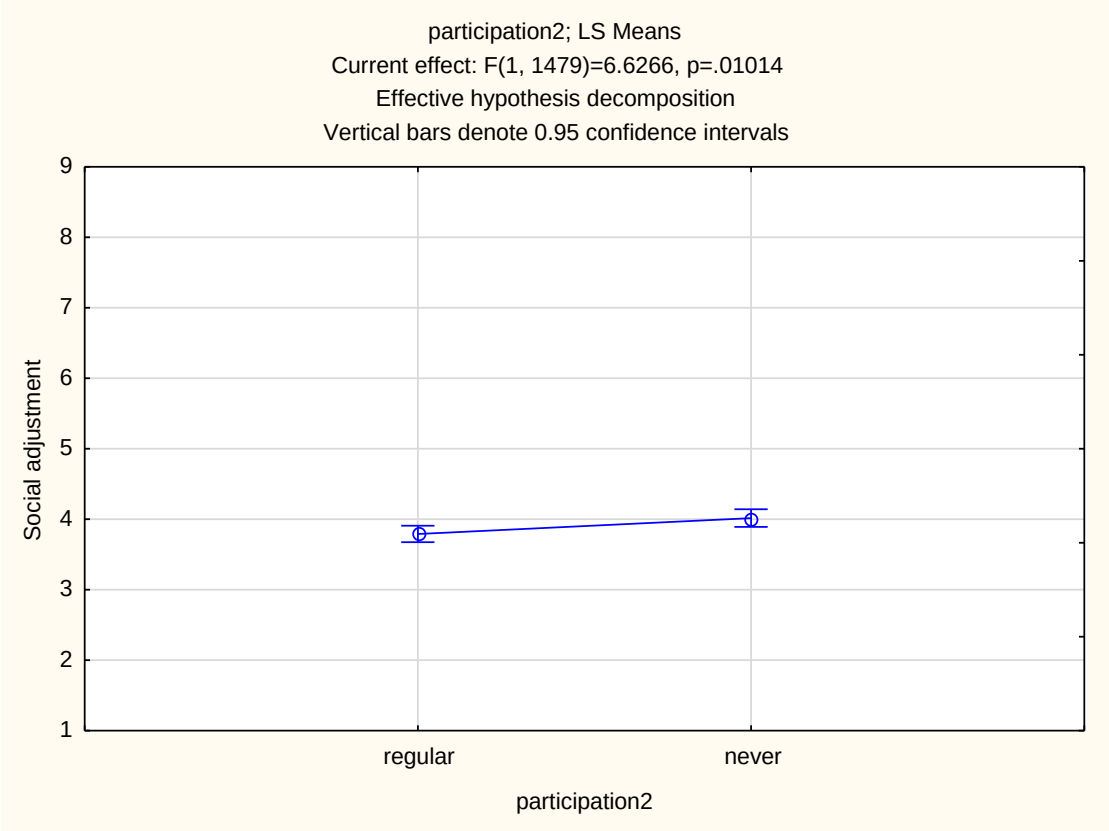
participation2*time	never	1		319	4.28	1.11
participation2*time	never	2		209	4.19	1.11
Parents educational background*time	Yes	1		796	4.01	1.10
Parents educational background*time	Yes	2		325	4.06	1.12
Parents educational background*time	No	1		268	4.31	1.13
Parents educational background*time	No	2		98	4.40	1.06
participation2*Parents educational background*time	regular	Yes	1	567	3.92	1.08
participation2*Parents educational background*time	regular	Yes	2	169	3.99	1.12
participation2*Parents educational background*time	regular	No	1	178	4.26	1.14
participation2*Parents educational background*time	regular	No	2	45	4.49	1.03
participation2*Parents educational background*time	never	Yes	1	229	4.24	1.11
participation2*Parents educational background*time	never	Yes	2	156	4.15	1.11
participation2*Parents educational background*time	never	No	1	90	4.39	1.13
participation2*Parents educational background*time	never	No	2	53	4.32	1.09

4.4. Social adjustment

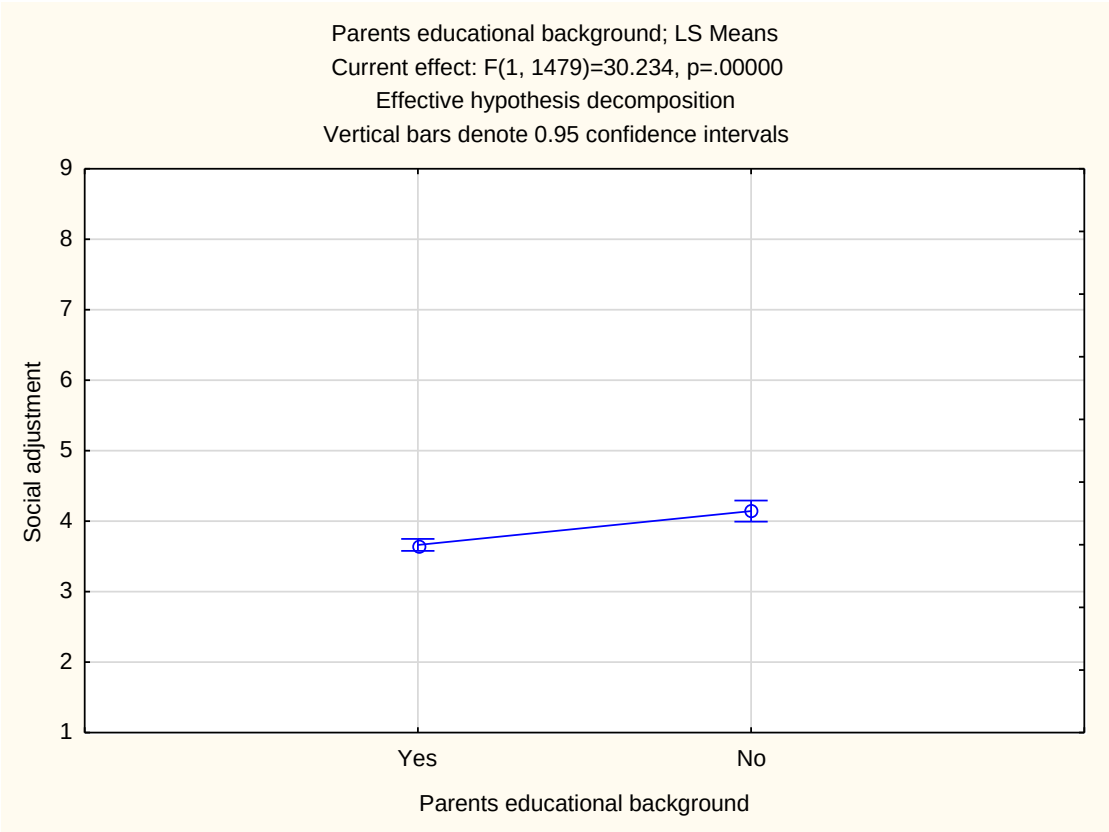
4.4.1. Univariate Tests of Significance for Social adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Social adjustment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.2658				
	SS	Degr. of Freedom	MS	F	p
Intercept	12787.18	1	12787.18	7980.53	0.00
participation2	10.62	1	10.62	6.63	0.01
Parents educational background	48.44	1	48.44	30.23	0.00
time	0.52	1	0.52	0.32	0.57
participation2*Parents educational background	6.11	1	6.11	3.81	0.05
participation2*time	5.40	1	5.40	3.37	0.07
Parents educational background*time	1.58	1	1.58	0.99	0.32
participation2*Parents educational background*time	3.58	1	3.58	2.24	0.14
Error	2369.80	1479	1.60		

4.4.2. participation2; LS Means



4.4.3. Parents educational background; LS Means



4.4.4. Descriptive Statistics (merged in resultate.stw)

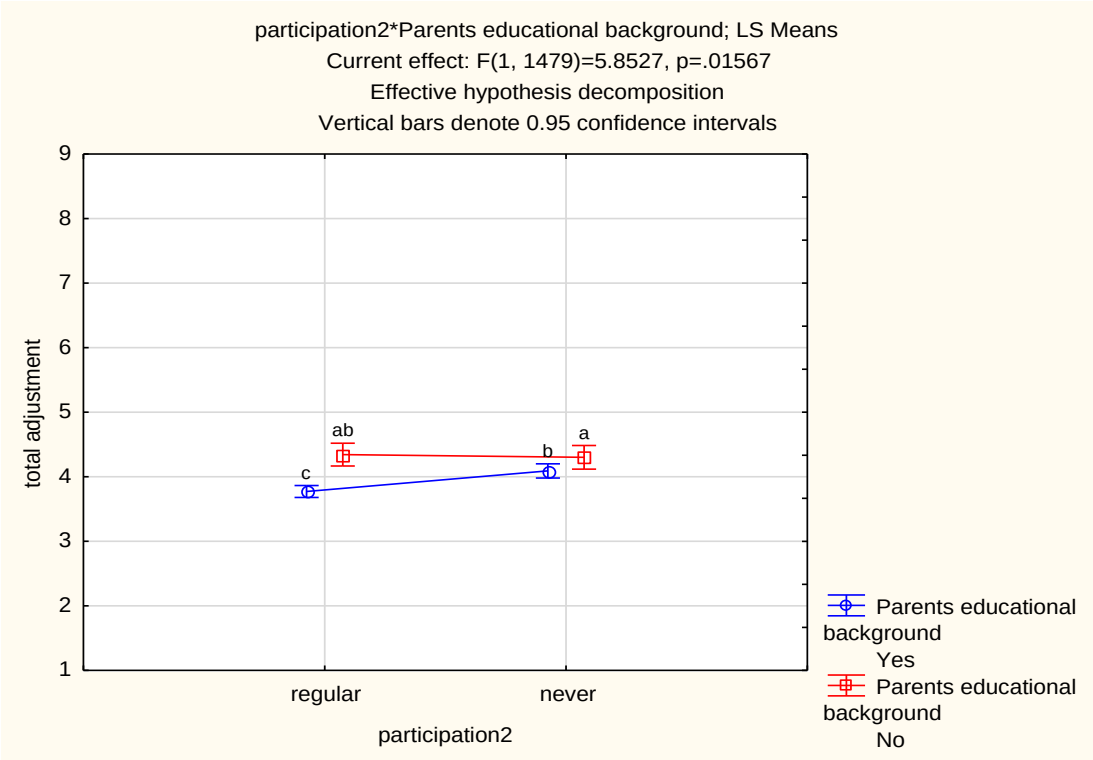
Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Social adjustment Mean	Social adjustment Std.Dev.
Total				148	3.74	1.29
participation2	regular			959	3.62	1.28
participation2	never			528	3.97	1.28
Parents educational background	Yes			112	3.63	1.29
Parents educational background	No			366	4.09	1.24
time	1			106	3.75	1.29
time	2			423	3.72	1.31
participation2*Parents educational background	regular	Yes		736	3.49	1.25
participation2*Parents educational background	regular	No		223	4.02	1.30
participation2*Parents educational background	never	Yes		385	3.88	1.31
participation2*Parents educational background	never	No		143	4.20	1.15
participation2*time	regular	1		745	3.62	1.27
participation2*time	regular	2		214	3.60	1.32
participation2*time	never	1		319	4.04	1.27
participation2*time	never	2		209	3.85	1.29
Parents educational background*time	Yes	1		796	3.64	1.29
Parents educational background*time	Yes	2		325	3.59	1.29
Parents educational background*time	No	1		268	4.07	1.24
Parents educational background*time	No	2		98	4.15	1.26
participation2*Parents educational background*time	regular	Yes	1	567	3.52	1.26
participation2*Parents educational background*time	regular	Yes	2	169	3.41	1.22
participation2*Parents educational background*time	regular	No	1	178	3.95	1.26
participation2*Parents educational background*time	regular	No	2	45	4.28	1.44
participation2*Parents educational background*time	never	Yes	1	229	3.94	1.29
participation2*Parents educational background*time	never	Yes	2	156	3.78	1.34
participation2*Parents educational background*time	never	No	1	90	4.30	1.17
participation2*Parents educational background*time	never	No	2	53	4.04	1.10

4.5. Total adjustment

4.5.1. Univariate Tests of Significance for total adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for total adjustment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.0804				
	SS	Degr. of Freedom	MS	F	p
Intercept	14290.94	1	14290.94	12243.16	0.00
participation2	4.02	1	4.02	3.44	0.06
Parents educational background	32.12	1	32.12	27.52	0.00
time	0.10	1	0.10	0.09	0.77
participation2*Parents educational background	6.83	1	6.83	5.85	0.02
participation2*time	4.75	1	4.75	4.07	0.04
Parents educational background*time	1.45	1	1.45	1.25	0.26
participation2*Parents educational background*time	0.65	1	0.65	0.56	0.46
Error	1726.38	1479	1.17		

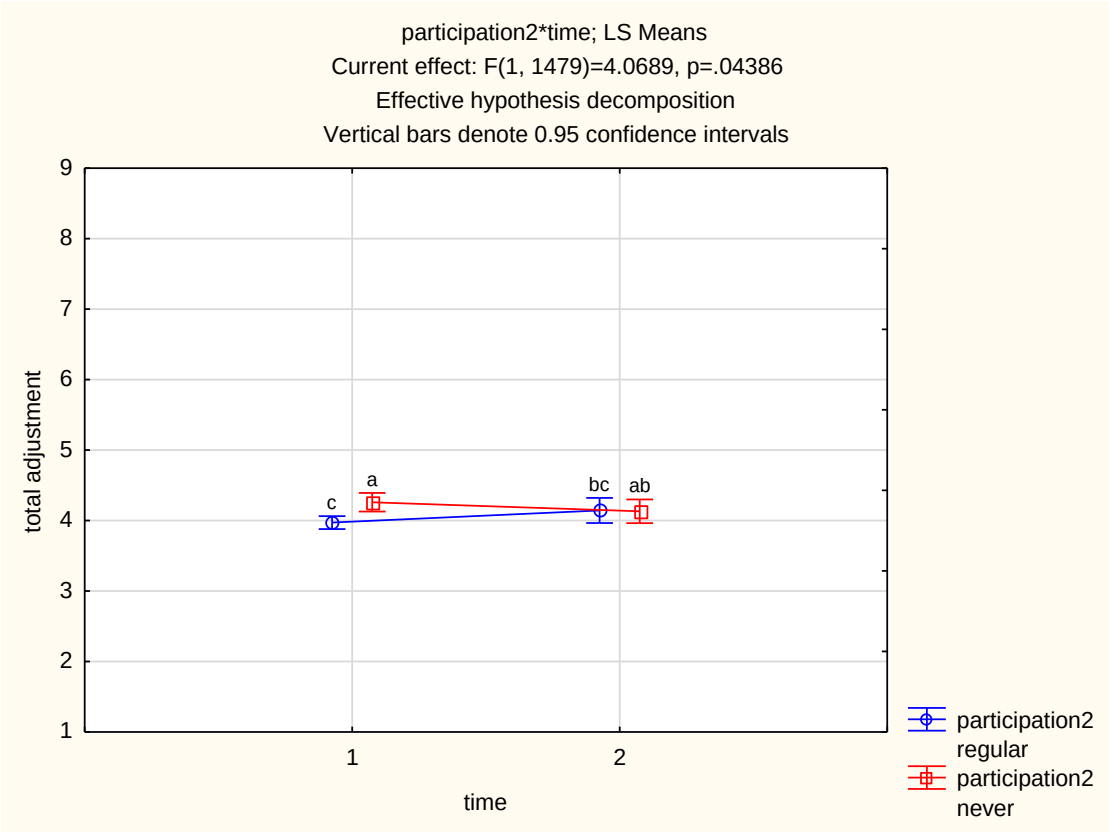
4.5.2. participation2*Parents educational background; LS Means



4.5.3. LSD test; variable total adjustment (merged in resultate.stw)

Cell No.	LSD test; variable total adjustment (merged in resultate.stw) Probabilities for Post Hoc Tests Error: Between MSE = 1.1673, df = 1479.0					
	participation2	Parents educational background	{1} 3.7629	{2} 4.2509	{3} 4.1056	{4} 4.3147
1	regular	Yes		0.00	0.00	0.00
2	regular	No	0.00		0.11	0.58
3	never	Yes	0.00	0.11		0.05
4	never	No	0.00	0.58	0.05	

4.5.4. participation2*time; LS Means



4.5.5. LSD test; variable total adjustment (merged in resultate.stw)

Cell No.	LSD test; variable total adjustment (merged in resultate.stw) Probabilities for Post Hoc Tests Error: Between MSE = 1.1673, df = 1479.0					
	participation2	time	{1} 3.8586	{2} 3.9382	{3} 4.2205	{4} 4.0733
1	regular	1		0.34	0.00	0.01
2	regular	2	0.34		0.00	0.20
3	never	1	0.00	0.00		0.13
4	never	2	0.01	0.20	0.13	

4.5.6. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	total adjustment Mean	total adjustment Std.Dev.
Total				148	3.98	1.10
participation2	regular			959	3.88	1.09
participation2	never			528	4.16	1.10
Parents educational background	Yes			112	3.88	1.09
Parents educational background	No			366	4.28	1.09
time	1			106	3.97	1.10
time	2			423	4.00	1.11
participation2*Parents educational background	regular	Yes		736	3.76	1.07
participation2*Parents educational background	regular	No		223	4.25	1.09
participation2*Parents educational background	never	Yes		385	4.11	1.10
participation2*Parents educational background	never	No		143	4.31	1.08
participation2*time	regular	1		745	3.86	1.08
participation2*time	regular	2		214	3.94	1.13
participation2*time	never	1		319	4.22	1.10
participation2*time	never	2		209	4.07	1.09
Parents educational background*time	Yes	1		796	3.87	1.08
Parents educational background*time	Yes	2		325	3.90	1.11
Parents educational background*time	No	1		268	4.24	1.10
Parents educational background*time	No	2		98	4.37	1.06
participation2*Parents educational background*time	regular	Yes	1	567	3.76	1.06
participation2*Parents educational background*time	regular	Yes	2	169	3.79	1.09
participation2*Parents educational background*time	regular	No	1	178	4.19	1.08
participation2*Parents educational background*time	regular	No	2	45	4.50	1.13
participation2*Parents educational background*time	never	Yes	1	229	4.17	1.08
participation2*Parents educational background*time	never	Yes	2	156	4.01	1.11
participation2*Parents educational background*time	never	No	1	90	4.35	1.14
participation2*Parents educational background*time	never	No	2	53	4.25	0.99

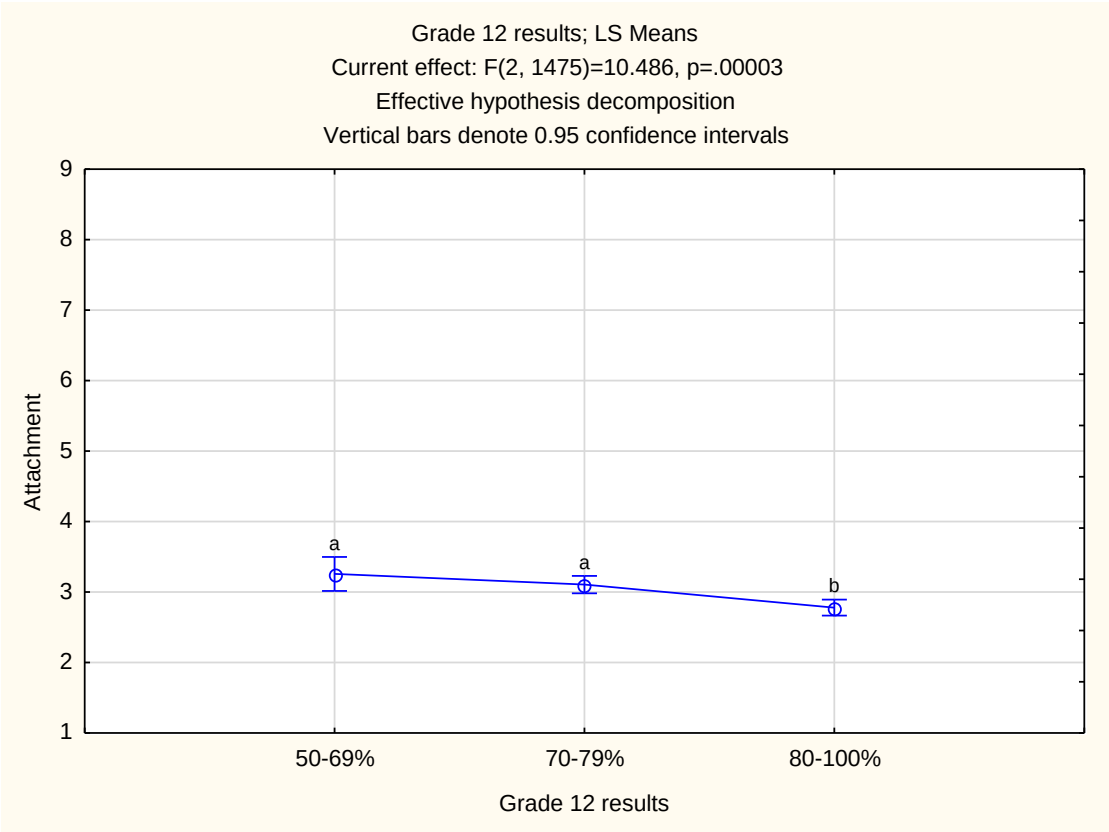
5. Grade 12 results

5.1. Attachment

5.1.1. Univariate Tests of Significance for Attachment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Attachment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.3469				
	SS	Degr. of Freedom	MS	F	p
Intercept	6769.55	1	6769.55	3731.35	0.00
participation2	12.64	1	12.64	6.97	0.01
Grade 12 results	38.05	2	19.02	10.49	0.00
time	0.32	1	0.32	0.17	0.68
participation2*Grade 12 results	4.22	2	2.11	1.16	0.31
participation2*time	5.58	1	5.58	3.08	0.08
Grade 12 results*time	3.30	2	1.65	0.91	0.40
participation2*Grade 12 results*time	1.76	2	0.88	0.49	0.62
Error	2676.00	1475	1.81		

5.1.2. Grade 12 results; LS Means



5.1.3. LSD test; variable Attachment (merged in resultate.stw)

Cell No.	LSD test; variable Attachment (merged in resultate.stw) Probabilities for Post Hoc Tests Error: Between MSE = 1.8142, df = 1475.0 Grade 12 results	{1} 3.1686	{2} 3.0482	{3} 2.7206
1	50-69%		0.30	0.00
2	70-79%	0.30		0.00
3	80-100%	0.00	0.00	

5.1.4. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw) Level of Factor	Level of Factor	Level of Factor	N	Attachment Mean	Attachment Std.Dev.
Total				1487	2.90	1.36
participation2	regular			959	2.78	1.33
participation2	never			528	3.12	1.41
Grade 12 results	50-69%			174	3.17	1.35
Grade 12 results	70-79%			577	3.05	1.31
Grade 12 results	80-100%			736	2.72	1.39
time	1			1064	2.88	1.37
time	2			423	2.95	1.35
participation2*Grade 12 results	regular	50-69%		103	2.96	1.29
participation2*Grade 12 results	regular	70-79%		335	2.97	1.28
participation2*Grade 12 results	regular	80-100%		521	2.63	1.34
participation2*Grade 12 results	never	50-69%		71	3.47	1.40
participation2*Grade 12 results	never	70-79%		242	3.16	1.34
participation2*Grade 12 results	never	80-100%		215	2.95	1.47
participation2*time	regular	1		745	2.75	1.32
participation2*time	regular	2		214	2.88	1.34
participation2*time	never	1		319	3.19	1.44
participation2*time	never	2		209	3.01	1.35
Grade 12 results*time	50-69%	1		134	3.12	1.33
Grade 12 results*time	50-69%	2		40	3.32	1.44
Grade 12 results*time	70-79%	1		411	3.00	1.31
Grade 12 results*time	70-79%	2		166	3.16	1.30
Grade 12 results*time	80-100%	1		519	2.72	1.41
Grade 12 results*time	80-100%	2		217	2.71	1.33
participation2*Grade 12 results*time	regular	50-69%	1	85	2.90	1.24
participation2*Grade 12 results*time	regular	50-69%	2	18	3.23	1.54
participation2*Grade 12 results*time	regular	70-79%	1	260	2.89	1.27
participation2*Grade 12 results*time	regular	70-79%	2	75	3.24	1.29

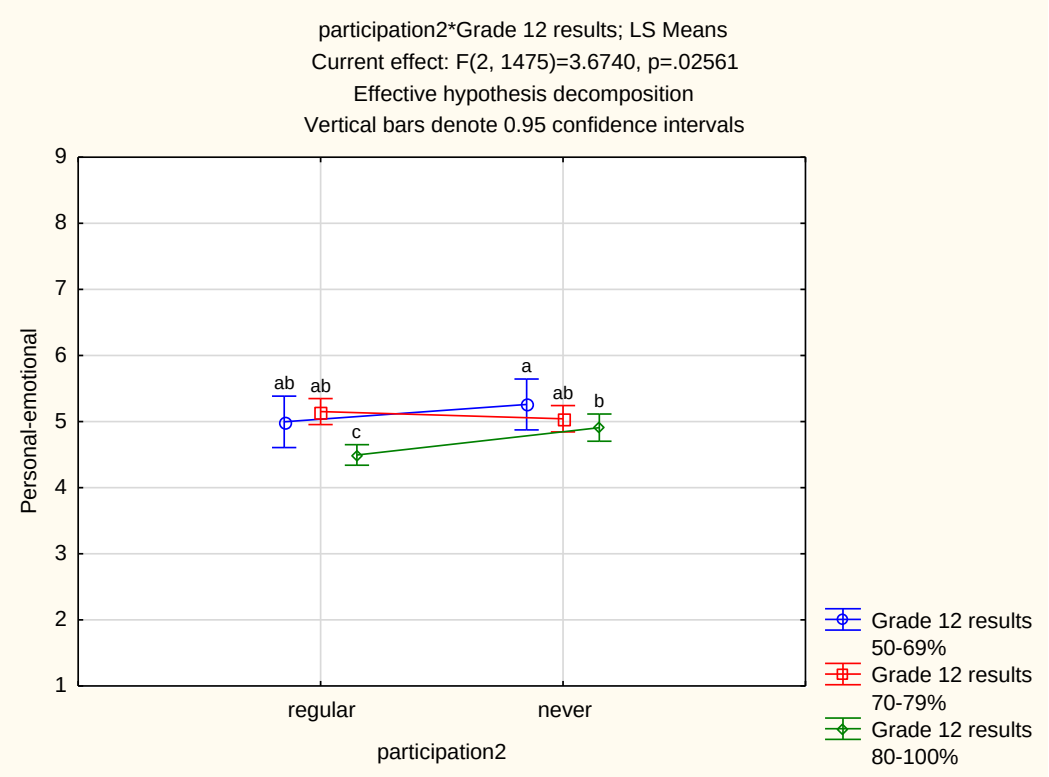
participation2*Grade 12 results*time	regular	80-100%	1	400	2.63	1.36
participation2*Grade 12 results*time	regular	80-100%	2	121	2.61	1.29
participation2*Grade 12 results*time	never	50-69%	1	49	3.50	1.41
participation2*Grade 12 results*time	never	50-69%	2	22	3.39	1.39
participation2*Grade 12 results*time	never	70-79%	1	151	3.21	1.36
participation2*Grade 12 results*time	never	70-79%	2	91	3.09	1.31
participation2*Grade 12 results*time	never	80-100%	1	119	3.03	1.54
participation2*Grade 12 results*time	never	80-100%	2	96	2.85	1.37

5.2. Personal-emotional

5.2.1. Univariate Tests of Significance for Personal-emotional (merged in resultate.stw)

Effect	Univariate Tests of Significance for Personal-emotional (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.5284				
	SS	Degr. of Freedom	MS	F	p
Intercept	18049.59	1	18049.59	7726.53	0.00
participation2	6.54	1	6.54	2.80	0.09
Grade 12 results	45.29	2	22.65	9.69	0.00
time	0.00	1	0.00	0.00	0.97
participation2*Grade 12 results	17.17	2	8.58	3.67	0.03
participation2*time	9.13	1	9.13	3.91	0.05
Grade 12 results*time	1.88	2	0.94	0.40	0.67
participation2*Grade 12 results*time	2.13	2	1.07	0.46	0.63
Error	3445.68	1475	2.34		

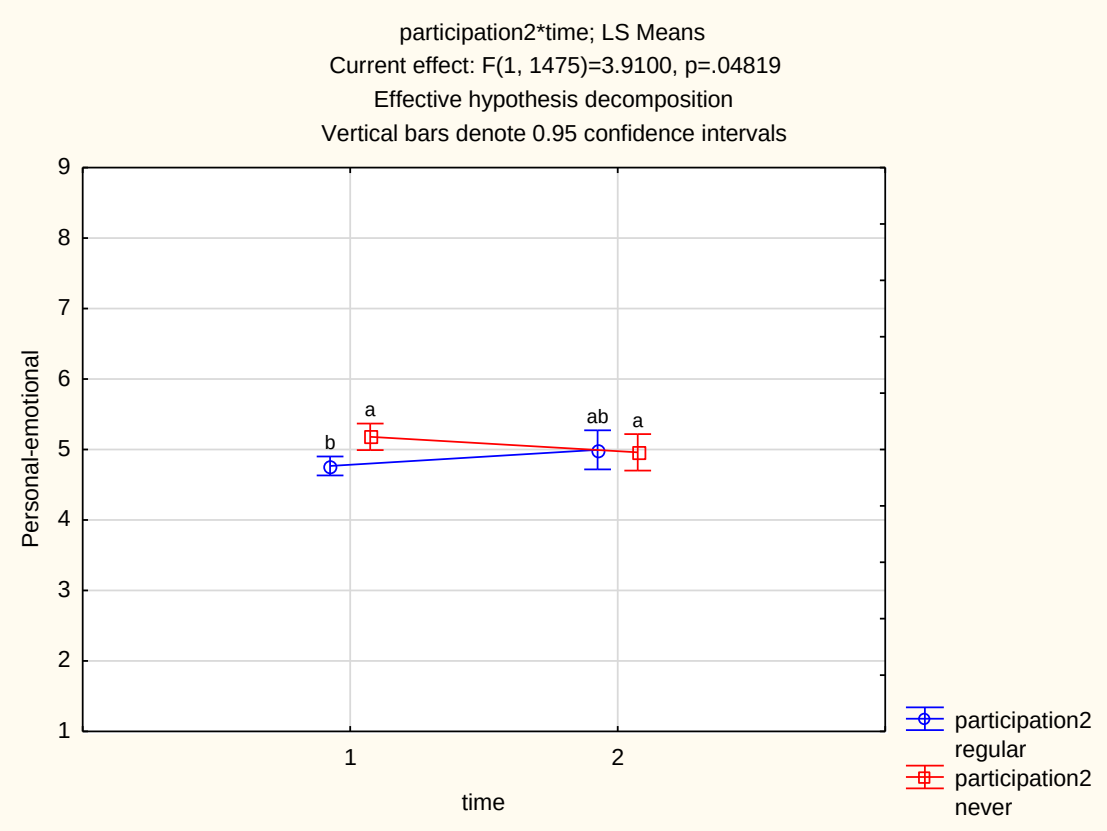
5.2.2. Participation2*Grade 12 results; LS Means



5.2.3. LSD test; variable Personal-emotional (merged in resultate.stw)

Cell No.	LSD test; variable Personal-emotional (merged in resultate.stw) Probabilities for Post Hoc Tests Error: Between MSE = 2.3361, df = 1475.0							
	participation2	Grade 12 results	{1} 4.9029	{2} 5.0778	{3} 4.4621	{4} 5.3615	{5} 5.0449	{6} 4.9153
1	regular	50-69%		0.31	0.01	0.05	0.43	0.95
2	regular	70-79%	0.31		0.00	0.16	0.80	0.22
3	regular	80-100%	0.01	0.00		0.00	0.00	0.00
4	never	50-69%	0.05	0.16	0.00		0.13	0.03
5	never	70-79%	0.43	0.80	0.00	0.13		0.37
6	never	80-100%	0.95	0.22	0.00	0.03	0.37	

5.2.4. Participation2*time; LS Means



5.2.5. LSD test; variable Personal-emotional (merged in resultate.stw)

Cell No.	participation2	time	{1} 4.6848	{2} 4.8626	{3} 5.0920	{4} 4.9474
1	regular	1		0.13	0.00	0.03
2	regular	2	0.13		0.09	0.57
3	never	1	0.00	0.09		0.29
4	never	2	0.03	0.57	0.29	

LSD test; variable Personal-emotional (merged in resultate.stw)
Probabilities for Post Hoc Tests
Error: Between MSE = 2.3361, df = 1475.0

5.2.6. Descriptive Statistics (merged in resultate.stw)

Effect	Level of Factor	Level of Factor	Level of Factor	N	Personal-emotional Mean	Personal-emotional Std.Dev.
Total				148	4.83	1.55
participation2	regular			959	4.72	1.53
participation2	never			528	5.03	1.57
Grade 12 results	50-69%			174	5.09	1.52
Grade 12 results	70-79%			577	5.06	1.50

Descriptive Statistics (merged in resultate.stw)

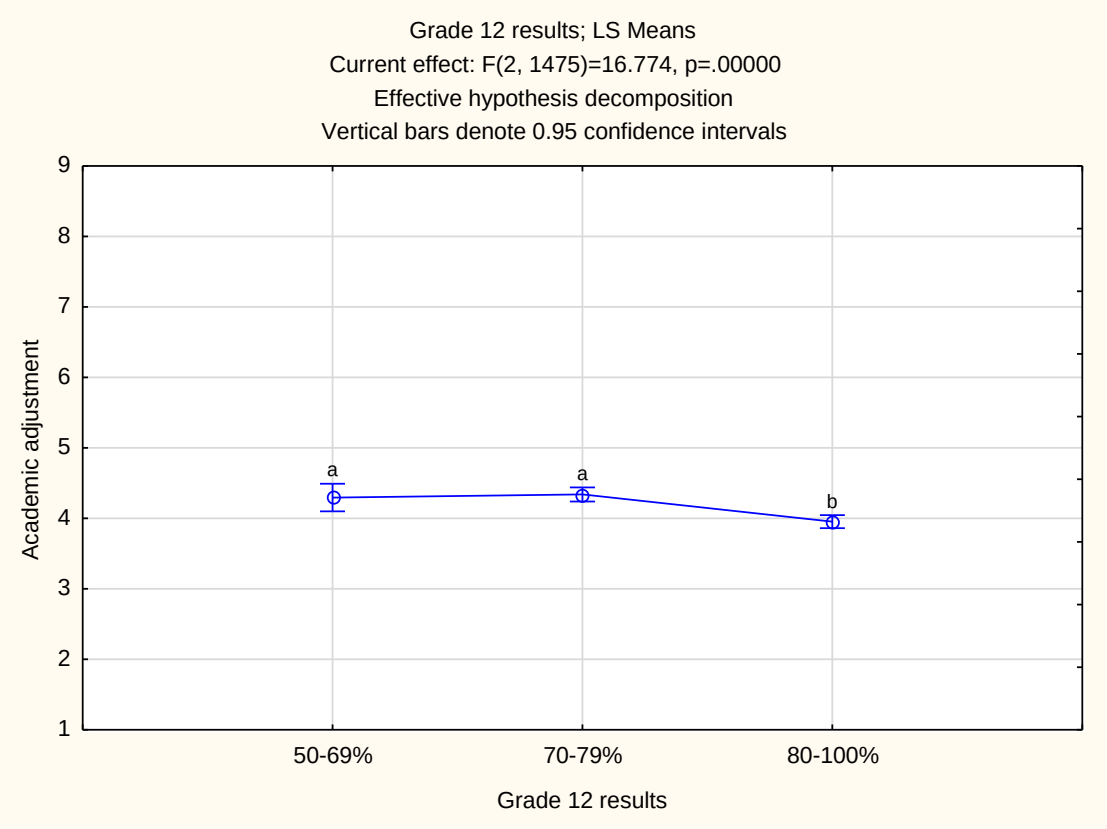
Grade 12 results	80-100%			736	4.59	1.56
time	1			106	4.81	1.53
time	2			423	4.90	1.61
participation2*Grade 12 results	regular	50-69%		103	4.90	1.45
participation2*Grade 12 results	regular	70-79%		335	5.08	1.49
participation2*Grade 12 results	regular	80-100%		521	4.46	1.52
participation2*Grade 12 results	never	50-69%		71	5.36	1.59
participation2*Grade 12 results	never	70-79%		242	5.04	1.53
participation2*Grade 12 results	never	80-100%		215	4.92	1.62
participation2*time	regular	1		745	4.68	1.50
participation2*time	regular	2		214	4.86	1.64
participation2*time	never	1		319	5.09	1.57
participation2*time	never	2		209	4.95	1.59
Grade 12 results*time	50-69%	1		134	5.10	1.49
Grade 12 results*time	50-69%	2		40	5.06	1.65
Grade 12 results*time	70-79%	1		411	5.03	1.51
Grade 12 results*time	70-79%	2		166	5.15	1.49
Grade 12 results*time	80-100%	1		519	4.56	1.52
Grade 12 results*time	80-100%	2		217	4.69	1.67
participation2*Grade 12 results*time	regular	50-69%	1	85	4.85	1.36
participation2*Grade 12 results*time	regular	50-69%	2	18	5.14	1.86
participation2*Grade 12 results*time	regular	70-79%	1	260	5.02	1.49
participation2*Grade 12 results*time	regular	70-79%	2	75	5.29	1.46
participation2*Grade 12 results*time	regular	80-100%	1	400	4.43	1.48
participation2*Grade 12 results*time	regular	80-100%	2	121	4.56	1.65
participation2*Grade 12 results*time	never	50-69%	1	49	5.53	1.62
participation2*Grade 12 results*time	never	50-69%	2	22	4.99	1.49
participation2*Grade 12 results*time	never	70-79%	1	151	5.05	1.54
participation2*Grade 12 results*time	never	70-79%	2	91	5.04	1.52
participation2*Grade 12 results*time	never	80-100%	1	119	4.97	1.57
participation2*Grade 12 results*time	never	80-100%	2	96	4.85	1.68

5.3. Academic adjustment

5.3.1. Univariate Tests of Significance for Academic adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Academic adjustment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.0932				
	SS	Degr. of Freedom	MS	F	p
Intercept	12834.59	1	12834.59	10739.12	0.00
participation2	5.54	1	5.54	4.64	0.03
Grade 12 results	40.09	2	20.05	16.77	0.00
time	0.10	1	0.10	0.09	0.77
participation2*Grade 12 results	6.90	2	3.45	2.89	0.06
participation2*time	2.41	1	2.41	2.02	0.16
Grade 12 results*time	0.43	2	0.21	0.18	0.84
participation2*Grade 12 results*time	1.29	2	0.65	0.54	0.58
Error	1762.81	1475	1.20		

5.3.2. Grade 12 results; LS Means



5.3.3. LSD test; variable Academic adjustment (merged in resultate.stw)

Cell No.	LSD test; variable Academic adjustment (merged in resultate.stw) Probabilities for Post Hoc Tests Error: Between MSE = 1.1951, df = 1475.0			
	Grade 12 results	{1} 4.2443	{2} 4.3125	{3} 3.9001
1	50-69%		0.47	0.00
2	70-79%	0.47		0.00
3	80-100%	0.00	0.00	

5.3.4. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Academic adjustment Mean	Academic adjustment Std.Dev.
Total				148	4.10	1.11
participation2	regular			959	4.02	1.11
participation2	never			528	4.25	1.11
Grade 12 results	50-69%			174	4.24	1.06
Grade 12 results	70-79%			577	4.31	1.08
Grade 12 results	80-100%			736	3.90	1.12
time	1			106	4.08	1.11
time	2			423	4.14	1.11
participation2*Grade 12 results	regular	50-69%		103	4.07	0.98
participation2*Grade 12 results	regular	70-79%		335	4.31	1.09
participation2*Grade 12 results	regular	80-100%		521	3.83	1.10
participation2*Grade 12 results	never	50-69%		71	4.50	1.12
participation2*Grade 12 results	never	70-79%		242	4.32	1.08
participation2*Grade 12 results	never	80-100%		215	4.08	1.12
participation2*time	regular	1		745	4.00	1.10
participation2*time	regular	2		214	4.10	1.12
participation2*time	never	1		319	4.28	1.11
participation2*time	never	2		209	4.19	1.11
Grade 12 results*time	50-69%	1		134	4.23	1.06
Grade 12 results*time	50-69%	2		40	4.30	1.04
Grade 12 results*time	70-79%	1		411	4.29	1.09
Grade 12 results*time	70-79%	2		166	4.37	1.07
Grade 12 results*time	80-100%	1		519	3.88	1.11
Grade 12 results*time	80-100%	2		217	3.94	1.13
participation2*Grade 12 results*time	regular	50-69%	1	85	4.04	0.96

participation2*Grade 12 results*time	regular	50-69%	2	18	4.22	1.09
participation2*Grade 12 results*time	regular	70-79%	1	260	4.26	1.11
participation2*Grade 12 results*time	regular	70-79%	2	75	4.48	1.03
participation2*Grade 12 results*time	regular	80-100%	1	400	3.82	1.10
participation2*Grade 12 results*time	regular	80-100%	2	121	3.84	1.12
participation2*Grade 12 results*time	never	50-69%	1	49	4.55	1.17
participation2*Grade 12 results*time	never	50-69%	2	22	4.37	1.01
participation2*Grade 12 results*time	never	70-79%	1	151	4.35	1.07
participation2*Grade 12 results*time	never	70-79%	2	91	4.28	1.10
participation2*Grade 12 results*time	never	80-100%	1	119	4.09	1.13
participation2*Grade 12 results*time	never	80-100%	2	96	4.06	1.13

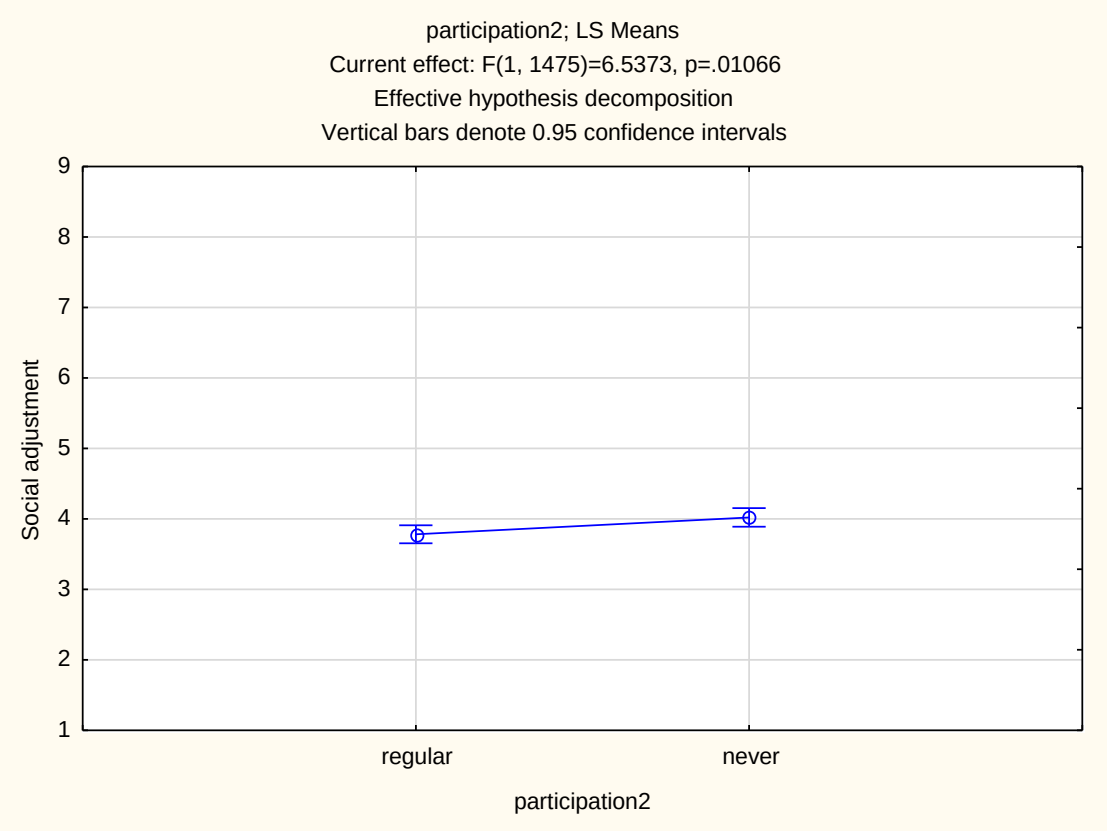
5.4. Social adjustment

5.4.1. Univariate Tests of Significance for Social adjustment (merged in resultate.stw)

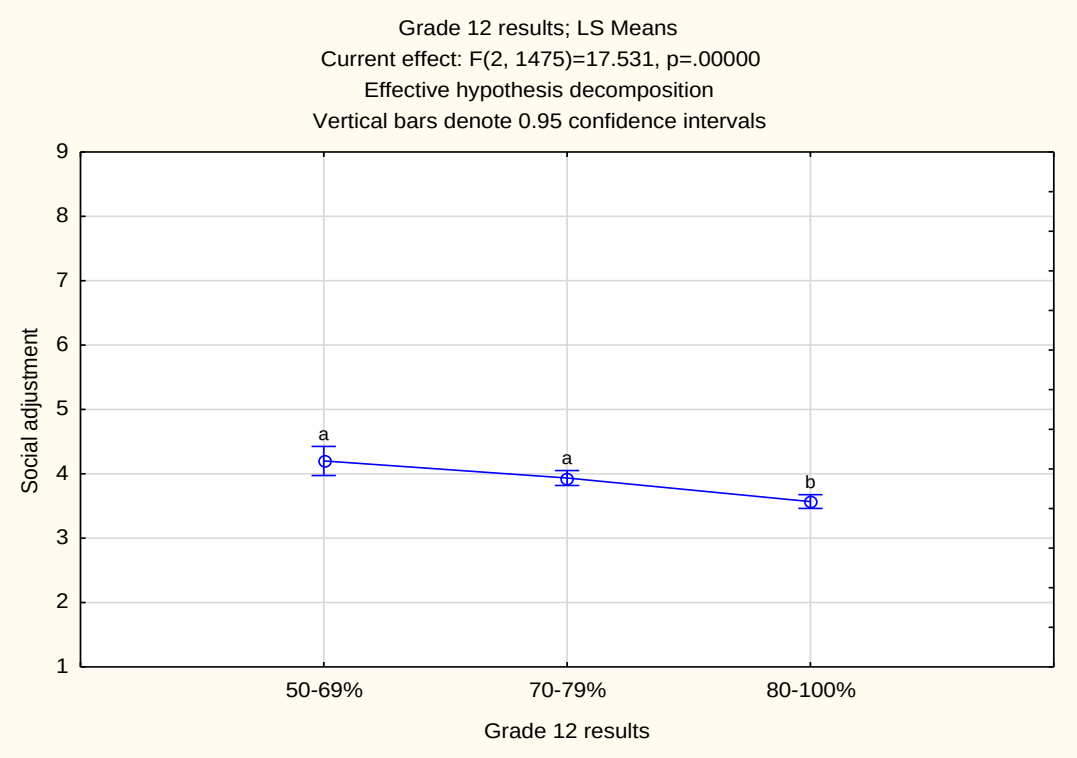
Effect	Univariate Tests of Significance for Social adjustment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.2662				
	SS	Degr. of Freedom	MS	F	p
Intercept	11096.73	1	11096.73	6921.53	0.00
participation2	10.48	1	10.48	6.54	0.01
Grade 12 results	56.21	2	28.11	17.53	0.00
time	0.08	1	0.08	0.05	0.83
participation2*Grade 12 results	4.38	2	2.19	1.37	0.26
participation2*time	4.41	1	4.41	2.75	0.10
Grade 12 results*time	5.51	2	2.76	1.72	0.18
participation2*Grade 12 results*time	4.30	2	2.15	1.34	0.26

Error		2364.75	1475	1.60		

5.4.2. participation2; LS Means



5.4.3. Grade 12 results; LS Means



5.4.4. LSD test; variable Social adjustment (merged in resultate.stw)

Cell No.	LSD test; variable Social adjustment (merged in resultate.stw) Probabilities for Post Hoc Tests Error: Between MSE = 1.6032, df = 1475.0			
	Grade 12 results	{1} 4.0744	{2} 3.9103	{3} 3.5285
1	50-69%		0.13	0.00
2	70-79%	0.13		0.00
3	80-100%	0.00	0.00	

5.4.5. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Social adjustment Mean	Social adjustment Std.Dev.
Total				148	3.74	1.29
participation2	regular			959	3.62	1.28
participation2	never			528	3.97	1.28
Grade 12 results	50-69%			174	4.07	1.31
Grade 12 results	70-79%			577	3.91	1.23
Grade 12 results	80-100%			736	3.53	1.30
time	1			106	3.75	1.29
time	2			423	3.72	1.31
participation2*Grade 12 results	regular	50-69%		103	3.92	1.36
participation2*Grade 12 results	regular	70-79%		335	3.82	1.23
participation2*Grade 12 results	regular	80-100%		521	3.43	1.27
participation2*Grade 12 results	never	50-69%		71	4.29	1.21
participation2*Grade 12 results	never	70-79%		242	4.04	1.23
participation2*Grade 12 results	never	80-100%		215	3.78	1.33
participation2*time	regular	1		745	3.62	1.27
participation2*time	regular	2		214	3.60	1.32
participation2*time	never	1		319	4.04	1.27
participation2*time	never	2		209	3.85	1.29
Grade 12 results*time	50-69%	1		134	4.00	1.24
Grade 12 results*time	50-69%	2		40	4.33	1.49
Grade 12 results*time	70-79%	1		411	3.91	1.24
Grade 12 results*time	70-79%	2		166	3.92	1.21
Grade 12 results*time	80-100%	1		519	3.56	1.31
Grade 12 results*time	80-100%	2		217	3.45	1.28
participation2*Grade 12 results*time	regular	50-69%	1	85	3.82	1.27

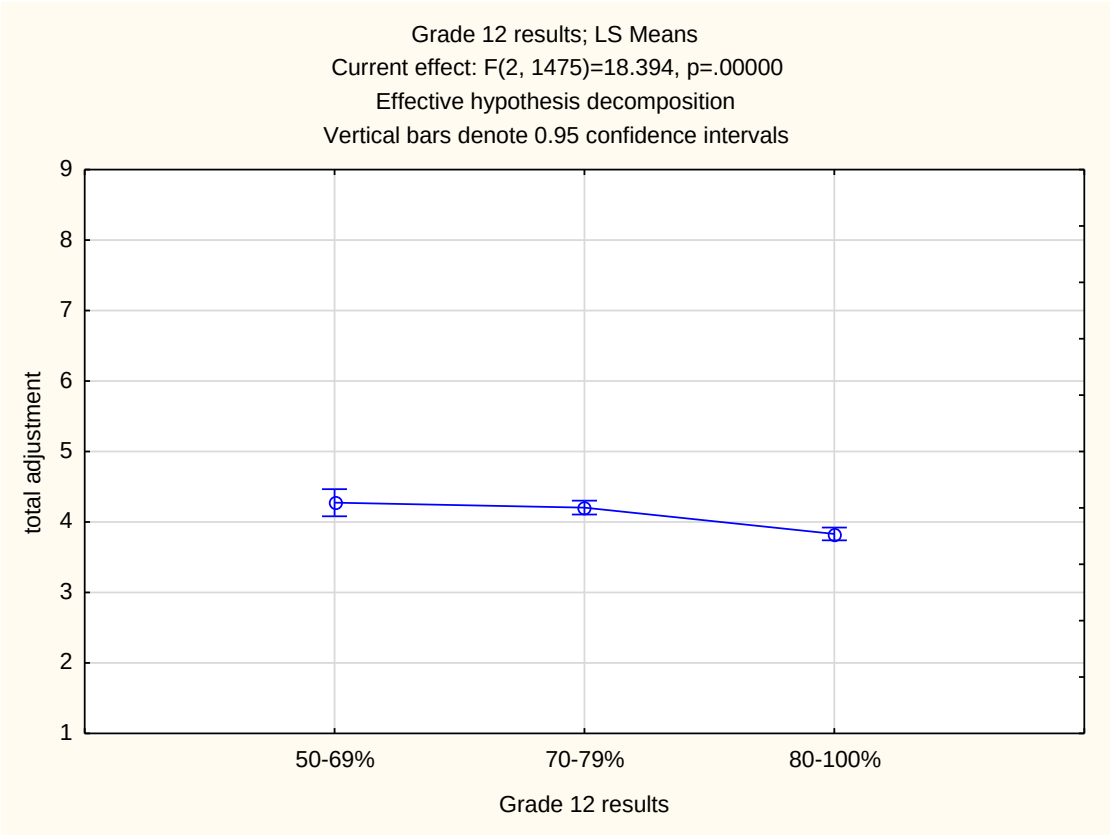
participation2*Grade 12 results*time	regular	50-69%	2	18	4.41	1.68
participation2*Grade 12 results*time	regular	70-79%	1	260	3.79	1.24
participation2*Grade 12 results*time	regular	70-79%	2	75	3.94	1.18
participation2*Grade 12 results*time	regular	80-100%	1	400	3.47	1.28
participation2*Grade 12 results*time	regular	80-100%	2	121	3.26	1.24
participation2*Grade 12 results*time	never	50-69%	1	49	4.31	1.15
participation2*Grade 12 results*time	never	50-69%	2	22	4.26	1.35
participation2*Grade 12 results*time	never	70-79%	1	151	4.11	1.22
participation2*Grade 12 results*time	never	70-79%	2	91	3.91	1.24
participation2*Grade 12 results*time	never	80-100%	1	119	3.85	1.35
participation2*Grade 12 results*time	never	80-100%	2	96	3.69	1.30

5.5. Total adjustment

5.5.1. Univariate Tests of Significance for total adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for total adjustment (merged in resultate.stw) Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 1.0775				
	SS	Degr. of Freedom	MS	F	p
Intercept	12272.48	1	12272.48	10571.07	0.00
participation2	7.55	1	7.55	6.50	0.01
Grade 12 results	42.71	2	21.35	18.39	0.00
time	0.04	1	0.04	0.03	0.86
participation2*Grade 12 results	6.53	2	3.26	2.81	0.06
participation2*time	4.53	1	4.53	3.90	0.05
Grade 12 results*time	1.14	2	0.57	0.49	0.61
participation2*Grade 12 results*time	1.88	2	0.94	0.81	0.44
Error	1712.40	1475	1.16		

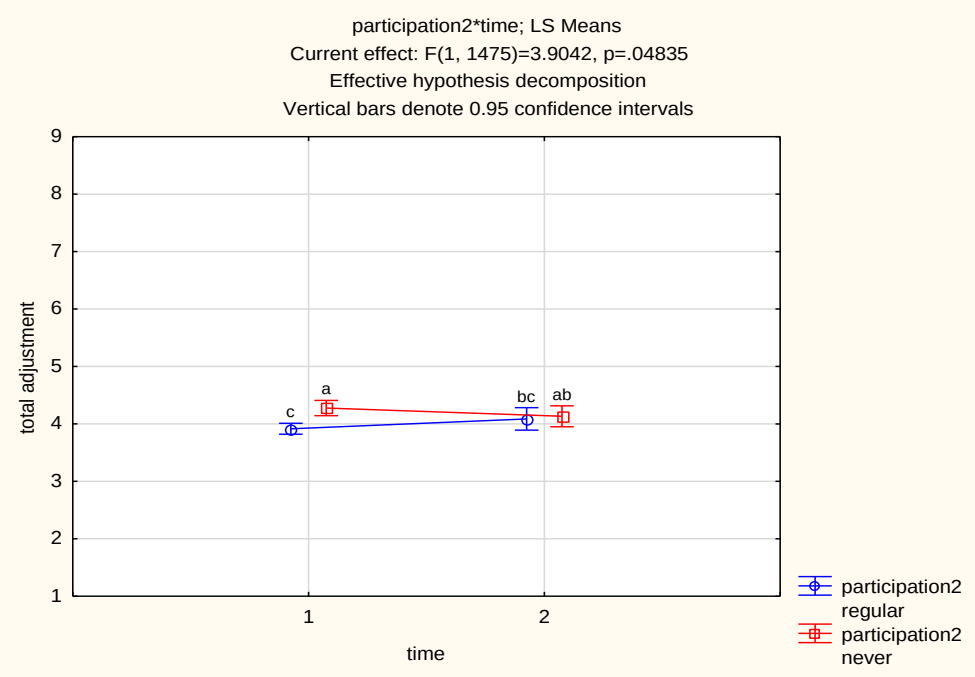
5.5.2. Grade 12 results; LS Means



5.5.3. LSD test; variable total adjustment (merged in resultate.stw)

Cell No.	LSD test; variable total adjustment (merged in resultate.stw) Probabilities for Post Hoc Tests Error: Between MSE = 1.1609, df = 1475.0			
	Grade 12 results	{1} 4.2042	{2} 4.1734	{3} 3.7710
1	50-69%		0.74	0.00
2	70-79%	0.74		0.00
3	80-100%	0.00	0.00	

5.5.4. Participation2*time; LS Means



5.5.5. LSD test; variable total adjustment (merged in resultate.stw)

Cell No.	Participation 2	time	{1} 3.8586	{2} 3.9382	{3} 4.2205	{4} 4.0733
1	regular	1		0.34	0.00	0.01
2	regular	2	0.34		0.00	0.20
3	never	1	0.00	0.00		0.12
4	never	2	0.01	0.20	0.12	

LSD test; variable total adjustment (merged in resultate.stw)
Probabilities for Post Hoc Tests
Error: Between MSE = 1.1609, df = 1475.0

5.5.6. Descriptive Statistics (merged in resultate.stw)

Effect	Level of Factor	Level of Factor	Level of Factor	N	total adjustment Mean	total adjustment Std.Dev.
Total				148	3.98	1.10
participation2	regular			959	3.88	1.09
participation2	never			528	4.16	1.10
Grade 12 results	50-69%			174	4.20	1.10
Grade 12 results	70-79%			577	4.17	1.04
Grade 12 results	80-100%			736	3.77	1.11
time	1			106	3.97	1.10
time	2			423	4.00	1.11

Descriptive Statistics (merged in resultate.stw)

participation2*Grade 12 results	regular	50-69%		103	4.03	1.06
participation2*Grade 12 results	regular	70-79%		335	4.14	1.04
participation2*Grade 12 results	regular	80-100%		521	3.68	1.10
participation2*Grade 12 results	never	50-69%		71	4.46	1.12
participation2*Grade 12 results	never	70-79%		242	4.22	1.05
participation2*Grade 12 results	never	80-100%		215	4.00	1.12
participation2*time	regular	1		745	3.86	1.08
participation2*time	regular	2		214	3.94	1.13
participation2*time	never	1		319	4.22	1.10
participation2*time	never	2		209	4.07	1.09
Grade 12 results*time	50-69%	1		134	4.18	1.08
Grade 12 results*time	50-69%	2		40	4.30	1.18
Grade 12 results*time	70-79%	1		411	4.15	1.05
Grade 12 results*time	70-79%	2		166	4.23	1.02
Grade 12 results*time	80-100%	1		519	3.77	1.11
Grade 12 results*time	80-100%	2		217	3.78	1.12
participation2*Grade 12 results*time	regular	50-69%	1	85	3.97	1.00
participation2*Grade 12 results*time	regular	50-69%	2	18	4.30	1.30
participation2*Grade 12 results*time	regular	70-79%	1	260	4.09	1.05
participation2*Grade 12 results*time	regular	70-79%	2	75	4.31	0.99
participation2*Grade 12 results*time	regular	80-100%	1	400	3.68	1.09
participation2*Grade 12 results*time	regular	80-100%	2	121	3.65	1.12
participation2*Grade 12 results*time	never	50-69%	1	49	4.53	1.13
participation2*Grade 12 results*time	never	50-69%	2	22	4.30	1.10
participation2*Grade 12 results*time	never	70-79%	1	151	4.26	1.05
participation2*Grade 12 results*time	never	70-79%	2	91	4.16	1.05
participation2*Grade 12 results*time	never	80-100%	1	119	4.05	1.12
participation2*Grade 12 results*time	never	80-100%	2	96	3.94	1.11

6. General Linear Models (GLM) (merged in resultate.stw)

6.1. Attachment

6.1.1. Univariate Tests of Significance for Attachment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Attachment (merged in resultate.stw) Sigma-restricted parameterization SS	Degr. of Freedom	MS	F	p
Intercept	9692.862	1	9692.862	5272.713	0.000000
From Western Cape	0.001	1	0.001	0.001	0.979054
participation2	19.773	1	19.773	10.756	0.001063
time	0.205	1	0.205	0.112	0.738214
From Western Cape*participation2	3.839	1	3.839	2.088	0.148628
From Western Cape*time	0.141	1	0.141	0.077	0.781647
participation2*time	6.450	1	6.450	3.509	0.061245
From Western Cape*participation2*time	0.252	1	0.252	0.137	0.711094
Error	2718.855	1479	1.838		

6.1.2. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Attachment Mean	Attachment Std.Dev.
Total				1487	2.90	1.36
From Western Cape	Yes			845	2.90	1.35
From Western Cape	No			642	2.91	1.39
participation2	regular			959	2.78	1.33
participation2	never			528	3.12	1.41
time	1			1064	2.88	1.37
time	2			423	2.95	1.35
From Western Cape*participation2	Yes	regular		517	2.73	1.29
From Western Cape*participation2	Yes	never		328	3.16	1.38
From Western Cape*participation2	No	regular		442	2.84	1.36
From Western Cape*participation2	No	never		200	3.05	1.45
From Western Cape*time	Yes	1		610	2.87	1.39
From Western Cape*time	Yes	2		235	2.96	1.24
From Western Cape*time	No	1		454	2.90	1.36
From Western Cape*time	No	2		188	2.93	1.48
participation2*time	regular	1		745	2.75	1.32
participation2*time	regular	2		214	2.88	1.34
participation2*time	never	1		319	3.19	1.44
participation2*time	never	2		209	3.01	1.35
From Western Cape*participation2*time	Yes	regular	1	407	2.70	1.32
From Western Cape*participation2*time	Yes	regular	2	110	2.82	1.18
From Western Cape*participation2*time	Yes	never	1	203	3.21	1.45
From Western Cape*participation2*time	Yes	never	2	125	3.08	1.28
From Western Cape*participation2*time	No	regular	1	338	2.81	1.32
From Western Cape*participation2*time	No	regular	2	104	2.94	1.51
From Western Cape*participation2*time	No	never	1	116	3.14	1.44
From Western Cape*participation2*time	No	never	2	84	2.91	1.45

6.2. Personal-emotional

6.2.1. Univariate Tests of Significance for Personal-emotional (merged in resultate.stw)

Effect	Univariate Tests of Significance for Personal-emotional (merged in resultate.stw) Sigma-restricted parameterization				
	SS	Degr. of Freedom	MS	F	p
Intercept	26598.75	1	26598.75	11114.12	0.00000(
From Western Cape	0.54	1	0.54	0.22	0.63635(
participation2	15.17	1	15.17	6.34	0.01190(
time	0.05	1	0.05	0.02	0.88095(
From Western Cape*participation2	0.88	1	0.88	0.37	0.54502(
From Western Cape*time	0.33	1	0.33	0.14	0.71117(
participation2*time	7.20	1	7.20	3.01	0.08303(
From Western Cape*participation2*time	0.02	1	0.02	0.01	0.93595(
Error	3539.60	1479	2.39		

6.2.2. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Personal-emotional Mean	Personal-emotional Std.Dev.
Total				1487	4.83	1.55
From Western Cape	Yes			845	4.85	1.53
From Western Cape	No			642	4.82	1.59
participation2	regular			959	4.72	1.53
participation2	never			528	5.03	1.57
time	1			1064	4.81	1.53
time	2			423	4.90	1.61
From Western Cape*participation2	Yes	regular		517	4.71	1.47
From Western Cape*participation2	Yes	never		328	5.07	1.59
From Western Cape*participation2	No	regular		442	4.75	1.60
From Western Cape*participation2	No	never		200	4.97	1.55
From Western Cape*time	Yes	1		610	4.81	1.53
From Western Cape*time	Yes	2		235	4.94	1.53
From Western Cape*time	No	1		454	4.80	1.53
From Western Cape*time	No	2		188	4.86	1.71
participation2*time	regular	1		745	4.68	1.50
participation2*time	regular	2		214	4.86	1.64
participation2*time	never	1		319	5.09	1.57
participation2*time	never	2		209	4.95	1.59
From Western Cape*participation2*time	Yes	regular	1	407	4.66	1.45
From Western Cape*participation2*time	Yes	regular	2	110	4.88	1.52
From Western Cape*participation2*time	Yes	never	1	203	5.12	1.62
From Western Cape*participation2*time	Yes	never	2	125	5.00	1.54
From Western Cape*participation2*time	No	regular	1	338	4.71	1.55
From Western Cape*participation2*time	No	regular	2	104	4.85	1.76
From Western Cape*participation2*time	No	never	1	116	5.05	1.47
From Western Cape*participation2*time	No	never	2	84	4.87	1.66

6.3. Academic adjustment

6.3.1. Univariate Tests of Significance for Academic adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Academic adjustment (merged in resultate.stw) Sigma-restricted parameterization				
	SS	Degr. of Freedom	MS	F	p
Intercept	19023.02	1	19023.02	15439.98	0.000000
From Western Cape	0.75	1	0.75	0.61	0.435507
participation2	9.17	1	9.17	7.45	0.006436
time	0.02	1	0.02	0.01	0.903643
From Western Cape*participation2	0.03	1	0.03	0.02	0.885230
From Western Cape*time	0.11	1	0.11	0.09	0.764137
participation2*time	2.23	1	2.23	1.81	0.179146
From Western Cape*participation2*time	0.05	1	0.05	0.04	0.833317
Error	1822.22	1479	1.23		

6.3.2. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw)					
	Level of Factor	Level of Factor	Level of Factor	N	Academic adjustment Mean	Academic adjustment Std.Dev.
Total				1487	4.10	1.11
From Western Cape	Yes			845	4.13	1.09
From Western Cape	No			642	4.06	1.14
participation2	regular			959	4.02	1.11
participation2	never			528	4.25	1.11
time	1			1064	4.08	1.11
time	2			423	4.14	1.11
From Western Cape*participation2	Yes	regular		517	4.04	1.09
From Western Cape*participation2	Yes	never		328	4.27	1.09
From Western Cape*participation2	No	regular		442	4.00	1.13
From Western Cape*participation2	No	never		200	4.20	1.15
From Western Cape*time	Yes	1		610	4.12	1.11
From Western Cape*time	Yes	2		235	4.16	1.05
From Western Cape*time	No	1		454	4.04	1.12
From Western Cape*time	No	2		188	4.12	1.19
participation2*time	regular	1		745	4.00	1.10
participation2*time	regular	2		214	4.10	1.12
participation2*time	never	1		319	4.28	1.11
participation2*time	never	2		209	4.19	1.11
From Western Cape*participation2*time	Yes	regular	1	407	4.02	1.10
From Western Cape*participation2*time	Yes	regular	2	110	4.11	1.07
From Western Cape*participation2*time	Yes	never	1	203	4.32	1.12
From Western Cape*participation2*time	Yes	never	2	125	4.20	1.04
From Western Cape*participation2*time	No	regular	1	338	3.97	1.11
From Western Cape*participation2*time	No	regular	2	104	4.08	1.18
From Western Cape*participation2*time	No	never	1	116	4.22	1.11
From Western Cape*participation2*time	No	never	2	84	4.17	1.21

6.4. Social adjustment

6.4.1. Univariate Tests of Significance for Social adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for Social adjustment (me in resultate.stw) Sigma-restricted parameterization SS	Degr. of Freedom	MS	F	p
Intercept	15858.68	1	15858.68	9680.406	0.000000
From Western Cape	1.26	1	1.26	0.767	0.381337
participation2	29.21	1	29.21	17.830	0.000026
time	3.78	1	3.78	2.310	0.128797
From Western Cape*participation2	3.88	1	3.88	2.368	0.124080
From Western Cape*time	0.08	1	0.08	0.048	0.826630
participation2*time	1.84	1	1.84	1.122	0.289558
From Western Cape*participation2*time	0.04	1	0.04	0.021	0.883712
Error	2422.93	1479	1.64		

6.4.2. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw) Level of Factor	Level of Factor	Level of Factor	N	Social adjustment Mean	Social adjustment Std.Dev.
Total				1487	3.74	1.29
From Western Cape	Yes			845	3.70	1.27
From Western Cape	No			642	3.79	1.31
participation2	regular			959	3.62	1.28
participation2	never			528	3.97	1.28
time	1			1064	3.75	1.29
time	2			423	3.72	1.31
From Western Cape*participation2	Yes	regular		517	3.52	1.24
From Western Cape*participation2	Yes	never		328	3.99	1.27
From Western Cape*participation2	No	regular		442	3.72	1.32
From Western Cape*participation2	No	never		200	3.93	1.29
From Western Cape*time	Yes	1		610	3.70	1.29
From Western Cape*time	Yes	2		235	3.70	1.22
From Western Cape*time	No	1		454	3.81	1.27
From Western Cape*time	No	2		188	3.74	1.41
participation2*time	regular	1		745	3.62	1.27
participation2*time	regular	2		214	3.60	1.32
participation2*time	never	1		319	4.04	1.27
participation2*time	never	2		209	3.85	1.29
From Western Cape*participation2*time	Yes	regular	1	407	3.53	1.26
From Western Cape*participation2*time	Yes	regular	2	110	3.52	1.16
From Western Cape*participation2*time	Yes	never	1	203	4.06	1.29
From Western Cape*participation2*time	Yes	never	2	125	3.87	1.25
From Western Cape*participation2*time	No	regular	1	338	3.74	1.28
From Western Cape*participation2*time	No	regular	2	104	3.68	1.46
From Western Cape*participation2*time	No	never	1	116	4.02	1.24
From Western Cape*participation2*time	No	never	2	84	3.81	1.35

6.5. Total adjustment

6.5.1. Univariate Tests of Significance for total adjustment (merged in resultate.stw)

Effect	Univariate Tests of Significance for total adjustment (merge resultate.stw) Sigma-restricted parameterization SS	Degr. of Freedom	MS	F	p
Intercept	17959.23	1	17959.23	14983.83	0.00000(
From Western Cape	0.01	1	0.01	0.01	0.91870
participation2	15.81	1	15.81	13.19	0.00029
time	0.30	1	0.30	0.25	0.61474
From Western Cape*participation2	1.08	1	1.08	0.90	0.34315
From Western Cape*time	0.00	1	0.00	0.00	0.98855(
participation2*time	3.40	1	3.40	2.83	0.09257
From Western Cape*participation2*time	0.01	1	0.01	0.01	0.93874
Error	1772.69	1479	1.20		

6.5.2. Descriptive Statistics (merged in resultate.stw)

Effect	Descriptive Statistics (merged in resultate.stw) Level of Factor	Level of Factor	Level of Factor	N	total adjustment Mean	total adjustment Std.Dev.
Total				1487	3.98	1.10
From Western Cape	Yes			845	3.98	1.08
From Western Cape	No			642	3.97	1.13
participation2	regular			959	3.88	1.09
participation2	never			528	4.16	1.10
time	1			1064	3.97	1.10
time	2			423	4.00	1.11
From Western Cape*participation2	Yes	regular		517	3.85	1.06
From Western Cape*participation2	Yes	never		328	4.19	1.09
From Western Cape*participation2	No	regular		442	3.91	1.13
From Western Cape*participation2	No	never		200	4.12	1.11
From Western Cape*time	Yes	1		610	3.97	1.10
From Western Cape*time	Yes	2		235	4.01	1.03
From Western Cape*time	No	1		454	3.96	1.09
From Western Cape*time	No	2		188	4.00	1.21
participation2*time	regular	1		745	3.86	1.08
participation2*time	regular	2		214	3.94	1.13
participation2*time	never	1		319	4.22	1.10
participation2*time	never	2		209	4.07	1.09
From Western Cape*participation2*time	Yes	regular	1	407	3.83	1.07
From Western Cape*participation2*time	Yes	regular	2	110	3.91	1.03
From Western Cape*participation2*time	Yes	never	1	203	4.25	1.12
From Western Cape*participation2*time	Yes	never	2	125	4.10	1.02
From Western Cape*participation2*time	No	regular	1	338	3.89	1.10
From Western Cape*participation2*time	No	regular	2	104	3.96	1.23
From Western Cape*participation2*time	No	never	1	116	4.17	1.06
From Western Cape*participation2*time	No	never	2	84	4.03	1.18